

15 NOVEMBER 2000

Flying Operations

**SPECIAL AIR MISSIONS (SAM) AIRCREW
EVALUATION CRITERIA**



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

NOTICE: This publication is available digitally on the AFPDO WWW site at:
<http://afpubs.hq.af.mil>.

OPR: HQ AMC/DOV (Maj John Prideaux)

Certified by: HQ USAF/XOO
(Maj Gen Michael S. Kudlacz)

Pages: 85

Distribution: F

This instruction implements AFPD 11-2, *Aircraft Rules and Procedures*. It establishes evaluation criteria for the operation of 89 AW VC-25, C-32A, C-137C, C-9C, C-20B/C/H and C-37A aircraft to safely and successfully accomplish their worldwide mobility missions. It is used in conjunction with AFI 11-202, Volume 2, *Aircrew Standardization/Evaluation Program*, and the appropriate MAJCOM supplement. This instruction is not applicable to Air National Guard (ANG) and Air Force Reserve Command (AFRC) units. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

The Privacy Act of 1974 applies to certain information gathered pursuant to this instruction. The Privacy Act System Number F011 AF XO A, Air Force Operations Resource Management Systems (AFORMS) covers required information. The Paperwork Reduction Act of 1974 as amended in 1996 affects this instruction. Maintain and dispose of records created as a result of processes prescribed in this publication in accordance with AFMAN 37-139, *Records Disposition Schedule*.

This document is new and must be completely reviewed.

Chapter 1— GENERAL INFORMATION	5
1.1. General.	5
1.2. Applicability.	5
1.3. Key Words Explained.	5
1.4. Deviations and Waivers.	5
1.5. Supplements and Local Procedures.	5
1.6. Requisition and Distribution Procedures.	6
1.7. Improvement Recommendations.	6

1.8. Evaluations.	6
1.9. Evaluation Requirements.	6
1.10. Grading Policies.	8
1.11. Grading System.	9
1.12. Unsatisfactory Performance. NOTE	10
1.13. Conduct of Evaluations.	10
1.14. Use of AF Form 3862, Aircrew Evaluation Worksheet.	11
1.15. Aircrew Testing.	12
1.16. 89 AW Evaluation Profile(s).	12
1.17. Difference Qualification/Certification--Equivalent MDS/Model Aircraft.	12
1.18. Senior Officer Requirements.	13
1.19. Multiple Qualification(s).	13

Chapter 2— PILOT EVALUATIONS 15

2.1. General.	15
2.2. Instrument Evaluations.	15
2.3. Qualification/Mission Evaluations. (Initial, Periodic, and Requalification).	15
2.4. Additional Mission Evaluations.	16
2.5. Instructor Evaluation (Initial, Periodic, or Requalification).	16
2.6. Emergency Procedures Evaluation (EPE).	17
2.7. Additional Information.	17
2.8. Pilot Grading Criteria.	17
2.9. GENERAL.	17
2.10. QUALIFICATION/MISSION.	19

Table 2.1. General Pilot Tolerances.	20
2.11. INSTRUMENT.	23
2.12. INSTRUCTOR.	27
2.13. ENROUTE (Aircraft Commander Only).	28
2.14. UNIT.	29

Chapter 3— NAVIGATOR EVALUATIONS 30

3.1. General.	30
3.2. Qualification/Mission Evaluations.	30

AFI11-2SAMV2 15 NOVEMBER 2000	3
3.3. Instructor Evaluation (Initial, Periodic, and Requalification).	30
3.4. Emergency Procedures Evaluation (EPE).	30
3.5. Qualification/Mission Grading Criteria.	30
3.6. GENERAL.	30
3.7. QUALIFICATION/MISSION.	33
3.8. INSTRUCTOR.	36
3.9. UNIT.	36
Chapter 4— FLIGHT ENGINEER EVALUATIONS	37
4.1. General.	37
4.2. Qualification/Mission Evaluations (Initial, Periodic, and Requalification).	37
4.3. Instructor Evaluations (Initial, Periodic, and Requalification).	38
4.4. Emergency Procedures Evaluations (EPE).	38
4.5. Additional Information.	38
4.6. Flight Engineer Grading Criteria.	38
4.7. GENERAL.	38
4.8. QUALIFICATION/MISSION.	41
4.9. INSTRUCTOR.	49
4.10. ENROUTE (Initial Flight Engineer Only).	50
4.11. UNIT.	51
Chapter 5— COMMUNICATION SYSTEMS OPERATOR (CSO) EVALUATIONS	52
5.1. General.	52
5.2. Qualification/Mission Evaluations.	52
5.3. Instructor Evaluations.	53
5.4. Emergency Procedures Evaluations (EPE).	53
5.5. Communication System Operator Grading Criteria.	53
5.6. GENERAL.	53
5.7. QUALIFICATION/MISSION.	55
5.8. INSTRUCTOR.	61
5.9. UNIT.	62
Chapter 6— FLIGHT ATTENDANT EVALUATIONS	63
6.1. General.	63

6.2. Qualification/Mission Evaluations.	63
6.3. Instructor Evaluations (Initial, Periodic, and Requalification).	64
6.4. Emergency Procedures Evaluations (EPE).	64
6.5. Additional Information.	64
6.6. Flight Attendant Evaluation Criteria.	64
6.7. GENERAL.	64
6.8. QUALIFICATION/MISSION	66
6.9. INSTRUCTOR.	72
6.10. UNIT.	72
Chapter 7— LOCAL PROCEDURES	73
7.1. General.	73
Attachment 1— GLOSSARY OF REFERENCES, ABBREVIATIONS, ACRONYMS, AND TERMS	74
Attachment 2— PILOT EVALUATION WORKSHEET EXAMPLE	76
Attachment 3— NAVIGATOR EVALUATION WORKSHEET EXAMPLE	78
Attachment 4— FLIGHT ENGINEER EVALUATION WORKSHEET EXAMPLE	80
Attachment 5— CSO EVALUATION WORKSHEET EXAMPLE	82
Attachment 6— FLIGHT ATTENDANT EVALUATION WORKSHEET EXAMPLE	84

Chapter 1

GENERAL INFORMATION

1.1. General. This AFI provides flight examiners and aircrews with procedures and evaluation criteria/tolerances to be used during flight evaluations required by AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. Specific areas for evaluation are prescribed to ensure an accurate assessment of the proficiency and capabilities of aircrews. Evaluators use this AFI when conducting aircrew evaluations. Instructors use this AFI when preparing aircrews for qualification.

1.2. Applicability. This AFI is applicable to all individuals operating 89 AW VC-25, C-32A, C-137C, C-9C, C-20B/C/H and C-37A aircraft. Copies should be available to all crewmembers operating 89 AW VC-25, C-32A, C-137C, C-9C, C-20B/C/H and C-37A aircraft.

1.3. Key Words Explained.

1.3.1. “Will” and “Shall” indicate a mandatory requirement.

1.3.2. “Should” is normally used to indicate a preferred, but not mandatory, method of accomplishment.

1.3.3. “May” indicates an acceptable or suggested means of accomplishment.

1.3.4. “Note” indicates operating procedures, techniques, etc., that are considered essential to emphasize.

1.4. Deviations and Waivers. Do not deviate from the policies and guidance in this AFI under normal circumstances, except for safety or when necessary to protect the crew or aircraft from a situation not covered by this AFI and immediate action is required. Report deviations or exceptions without waiver through channels to HQ AMC/DOV for follow-on action, if necessary.

1.4.1. Waiver authority for the contents of this document is lead command (HQ AMC/DO), according to AFI 11-202V2, and the appropriate MAJCOM supplement.

1.5. Supplements and Local Procedures. This AFI is a basic directive. The 89 AW is the sole AMC unit using this AFI. User commands may supplement this AFI according to AFD 11-2, *Aircraft Rules and Procedures*. The 89 AW will use [Chapter 7](#) for local procedures and will not be less restrictive than the provisions of this AFI or the appropriate flight manual.

1.5.1. Supplement Coordination Process. Forward MAJCOM/DO approved supplements, with attached AF Form 673, **Request to Issue Publication**, to lead command (HQ AMC/DO) for review. HQ AMC/DO will provide a recommendation and forward to HQ USAF/XOOT for approval. Use the following OPR's address: HQ AMC/DOV, 402 Scott Dr., Unit 3A1, Scott AFB IL, 62225-5302. When the supplement is published provide a final copy to HQ USAF/XOOT and lead command OPR (HQ AMC/DOV).

1.5.2. Approved long-term waivers to AFI 11-202V2 (including, approval authority and date) are incorporated in the appropriate paragraph of this AFI.

1.5.3. Local Procedures Coordination. Send proposed [Chapter 7](#), 89 AW Local Procedures to 21 AF/DO, then HQ AMC/DO for approval. HQ AMC/DOV will approve follow-on change to [Chapter](#)

7 in coordination with 21 AF/DO. When local procedures are published provide a final copy to HQ AMC/DOV and 21 AF/DO.

1.6. Requisition and Distribution Procedures. Unit commanders provide copies for all aircrew members and associated support personnel.

1.7. Improvement Recommendations. Send comments and suggested improvements to this instruction on AF Form 847, **Recommendation for Change of Publication**, through channels to HQ AMC/DOV, 402 Scott Drive Unit 3A7, Scott AFB IL, 62225-5302 according to AFI 11-215, *Flight Manual Procedures*, and MAJCOM Supplement.

1.8. Evaluations. This instruction establishes standardized instrument, qualification, mission, and instructor evaluation criteria. It also establishes the areas/sub areas necessary for the successful completion of evaluations, and which required areas will be considered critical and/or non-critical.

1.8.1. For the Presidential Pilots Office, the designated VC-25A evaluator is the top of the VC-25A pyramid and will be designated as the 21 AF (NAF) evaluator during the units formal Aircrew Stan/Eval Visit (ASEV). The senior flight examiner will receive an evaluation from 21 AF/DOV or HQ AMC/DOV when a flight examiner counterpart is assigned to 21 AF or HQ AMC. With no 21 AF/DOV or HQ AMC/DOV counterpart in place, HQ AMC/DOV will designate the VC-25A senior flight examiner to evaluate the top of the pyramid.

1.9. Evaluation Requirements. See the appropriate crew chapters for evaluation requirements. Accomplish evaluations (one flight evaluation) concurrently, whenever practical. 89 AW VC-25, C-32A, C-137C, C-9C, C-20B/C/H and C-37A aircrews will complete the following evaluations, at 17-month frequency according to AFI 11-202V2.

1.9.1. Instrument (INSTM) Evaluation. All 89 AW VC-25, C-32A, C-137C, C-9C, C-20B/C/H and C-37A pilots will successfully complete a periodic instrument evaluation. Include the requisite instrument refresher course (IRC), open-book written instrument examination (according to AFMAN 11-210, *Instrument Refresher Course Program*), and a simulator and/or flight evaluation.

1.9.2. Qualification (QUAL) Evaluation. All 89 AW VC-25A, C-32A, C-9C, C-20B/C/H, C-137C and C-37A crewmembers will successfully complete a periodic qualification evaluation according to AFI 11-202V2.

1.9.2.1. The 89 AW VC-25A, C-32A, C-9C, C-20B/C/H, C-137C and C-37A aircraft contracted and approved simulators (SIM) should normally be used in conjunction with all qualification, EPE, and, if applicable, instrument evaluations to the maximum extent possible. Conduct evaluations in an approved simulator, by an AF flight examiner only. SIM evaluations will consist of areas/subareas that can be realistically accomplished and ATD-creditable in AFI 11-2SAMV1, *Special Air Missions (SAM) Aircrew Training*.

1.9.3. Mission (MSN) Evaluation. All 89 AW VC-25A, C-32A, C-9C, C-20B/C/H, C-137C and C-37A aircraft crew members will successfully complete an initial and periodic mission evaluation according to AFI 11-202V2. Combine the qualification and mission evaluation on one flight except as noted below:

1.9.3.1. C-32A, C-137C, C-9C, C-20B/C/H and C-37A aircraft commanders will accomplish an initial and recurring enroute MSN evaluations. C-137C/C-9C/C-20B/C/H and C-37A flight engineers will be administered an initial and periodic enroute MSN. The periodic (recurring) evaluation will be conducted IAW AFI 11-202V2. Refer to the specific aircrew chapters for requirements.

1.9.3.2. Initial and recurring enroute mission evaluations are not required for first pilots/instructor designated aircraft commanders. Refer to the specific aircrew chapters for requirements.

1.9.4. Instructor (INSTR) Evaluations. To initially qualify as an instructor in the 89 AW VC-25A, C-32A, C-9C, C-20B/C/H, C-137C and C-37A, crewmembers will successfully complete an initial instructor evaluation. The initial instructor evaluation will include all areas under GENERAL, INSTRUCTOR, and selected QUALIFICATION/MISSION areas as determined by the evaluator. Subsequently, aircrew members designated as instructors will be evaluated on their ability to instruct during all periodic evaluations.

NOTE: Aircrew members who desire to re-align their qualification evaluation during the initial instructor evaluation must “demonstrate” all areas and complete requisites.

1.9.5. SPOT Evaluations. A SPOT evaluation is not intended to satisfy the requirements of a periodic (i.e., INSTM, QUAL, MSN, or INSTR) evaluation. SPOT evaluations usually have no specific requisites or requirements and are conducted according to AFI 11-202V2. An evaluation begun as a SPOT evaluation may become (and be documented as) a periodic evaluation if all required flight-phase requirements are completed and the examinee subsequently completes requisites within the allotted time.

1.9.6. Emergency Procedures Evaluations (EPE). See AFI 11-202V2 and the following: Evaluate an aircrew member’s knowledge of emergency procedures and systems knowledge for all initial, re-qualification, and periodic qualification and mission evaluations. The EPE will include areas commensurate with the examinee’s graduated training or as specified in AFI 11-202V2 and MAJCOM Supplement. Accomplish the EPE as per [Chapter 7](#).

1.9.6.1. 89 OG/OGV will establish and publish in [Chapter 7](#) of this instruction EPE guidelines, requirements, and procedures to ensure adequate and standardization. An EPE guide for each crew position will be developed detailing the evaluation areas and conduct of the EPE. Normally, use one continuous scenario throughout the EPE or different scenarios for each emergency procedure. For multiple qualified FAs and CSOs, an EPE will also be conducted for each additional MDS aircraft on the recurring qualification evaluation.

1.9.6.2. Evaluate an aircrew member’s knowledge of emergency procedures and systems knowledge for initial and periodic evaluations. Accomplish this during the pre-brief or during the flight evaluation.

1.9.6.3. Examinees may use publications that are normally available in-flight. The examinee must recite all boldface items from memory and should provide the initial steps of emergency procedures that, in the opinion of the evaluator, would not allow time for reference.

1.9.6.4. Examinees receiving an overall EPE grade of unqualified will be placed in supervised status until recommended additional training and re-evaluation are completed. Examinees receiving an overall EPE grade of unqualified because of unsatisfactory Boldface/Critical Action Proce-

dures will not be permitted to fly in their aircrew position until a successful re-evaluation is accomplished. Accomplish additional training according to AFI 11-202V2.

1.9.7. Evaluation Prefixes. Use AFI 11-202V2 evaluation prefixes for AF Form 8, **Certificate of Aircrew Qualification**, and AF Form 942, **Record of Evaluation**.

1.9.7.1. Identify unique mission-type evaluation descriptions, (e.g., enroute, etc.) on AF Form 8, Examiner's Remarks, A. Mission Description (as a first entry). See crewmember chapters for AF Form 8 specific annotations.

1.9.7.2. Conversion/Difference Evaluations. The phrase "conversion" describes training and evaluation in different MDS (e.g., C-9C and C-20B, etc) and is more commonly referred to as multiple qualification. The phrase "difference" describes the training and/or evaluation of one or more unique areas to meet the qualification requirements of the different series of the same model design aircraft. Normally, a difference evaluation will include all areas that are different between aircraft models, systems, or operations not previously qualified to operate. A difference evaluation does not have expiration date established because the evaluation does not satisfy the requirements for the "full" periodic evaluation (unless requisites for the full periodic evaluation are completed during the difference evaluation. See each crewmember's chapter for conversion or difference evaluations.

1.10. Grading Policies.

1.10.1. The overall qualification level awarded an evaluation is based on performance during both the flight and ground phases. This grade should be awarded only after all evaluation requirements have been completed and given due consideration.

1.10.2. To receive a qualified grade on an evaluation, the aircrew member must satisfy the criteria set forth for that evaluation and demonstrate ability to operate the aircraft and/or equipment safely and effectively during all phases of an evaluation.

1.10.3. Use the grading criteria in this instruction to grade areas/subareas accomplished during an evaluation.

1.10.3.1. The flight examiner must grade the areas/subareas listed as "required" in the general and specific evaluation sections of this instruction.

1.10.3.2. The flight examiner may grade any area/subarea accomplished during an evaluation if performance in that area/subarea impacts the specific evaluation accomplished or flight safety.

1.10.4. When in-flight evaluation of a required area is not possible; the area may be verbally evaluated or evaluated in an ATD. Flight examiners will make every effort to evaluate all required areas in-flight before resorting to this provision. See the appropriate chapter for areas prohibited from verbal/ATD evaluation.

1.10.5. Grading criteria tolerances assume smooth air and stable aircraft conditions. Minor momentary deviations are acceptable, provided the examinee applies prompt corrective action and such deviations do not jeopardize flight safety. Consider cumulative deviations when determining the overall grade.

1.10.5.1. For pilots only, deviations incurred while employing clearing procedures will be considered momentary deviations. If the flight manual recommends a specific airspeed range for perfor-

mance of a maneuver, the flight examiner will apply the grading criteria to the upper and lower limits of that range.

1.10.5.2. 89 AW VC-25A, C-32A, C-9C, C-20B/C/H, C-137C and C-37A flight examiners will use the grading criteria in this instruction to assist in determining proper grades, not to replace flight examiner judgment.

1.11. Grading System.

NOTE: This paragraph is for reference only and duplicates information in AFI 11-202V2 allowing the evaluator a single-source instruction for critical phases of the evaluation. When a conflict occurs, use AFI 11-202V2.

1.11.1. Overall Qualification Levels.

1.11.1.1. Qualification Level 1 (Q-1). The aircrew member demonstrated desired performance and knowledge of procedures, equipment, and directives within tolerances specified in this instruction. Qualification Level 1 will be awarded when no discrepancies were noted and may be awarded when discrepancies are noted if:

1.11.1.1.1. The discrepancies resulted in no lower than a “Q-” grade being given in any area(s) subarea(s).

1.11.1.1.2. In the judgment of the flight examiner, none of the discrepancies precludes awarding of an overall Q-1.

1.11.1.1.3. All discrepancies noted during the evaluation were cleared during the debrief of that evaluation.

1.11.1.2. Qualification Level 2 (Q-2). The aircrew member demonstrated the ability to perform duties safely, but:

1.11.1.2.1. There was one (or more) area(s)/subarea(s) where additional training was assigned.

1.11.1.2.2. A non-critical area/subarea grade of “U” was awarded.

1.11.1.2.3. In the judgment of the flight examiner, there is justification based on performance in one or several areas/subareas.

1.11.1.3. Qualification Level 3 (Q-3). The aircrew member demonstrated an unacceptable level of safety, performance or knowledge.

1.11.1.3.1. An area grade of “U” awarded in a critical area requires an overall “Q-3” for the evaluation.

1.11.1.3.2. An overall “Q-3” can be awarded if, in the judgment of the flight examiner, there is justification based on performance in one or more areas/subareas.

1.11.1.4. The flight examiner will indicate all appropriate restriction(s) and additional training on the AF Form 8.

1.11.2. Area/Subarea Grades. Areas/Subareas will have a two-level (Q/U) or three-level (Q/Q-/U) grading system. The overall area grade will be the lowest of any subarea grade awarded.

1.11.2.1. A “Q” is the desired level of performance. The examinee demonstrated a satisfactory knowledge of all required information, performed aircrew duties within the prescribed tolerances and accomplished the assigned mission.

1.11.2.2. A “Q-” indicates the examinee is qualified to perform the assigned area tasks, but requires debriefing or additional training as determined by the flight examiner. Deviations from established standards must not exceed the prescribed “Q-” tolerances or jeopardize flight safety.

1.11.2.3. Assign a “U” area grade for any breach of flight discipline, performance outside allowable parameters or deviations from prescribed procedures/ tolerances that adversely affected mission accomplishment or compromised flight safety. An examinee receiving an area grade of “U” normally requires additional training. When, in the judgment of the flight examiner, additional training will not constructively improve examinee’s performance, it is not required. In this case, the flight examiner must thoroughly debrief the examinee.

1.11.3. Boldface/Recall. Grade Boldface/Recall either “Q” or “U.”

1.11.4. Critical Areas. Critical areas require adequate accomplishment by the aircrew member in order to successfully achieve the mission objectives. If an aircrew member receives an unqualified grade in any critical area, the overall grade for the evaluation will also be unqualified. Critical areas are identified by “(Critical)” in the areas’ title and shading of Q- block on AF Form 3862, **Aircrew Evaluation Worksheet**, (see examples at [Attachment 2](#), [Attachment 3](#), [Attachment 4](#), [Attachment 5](#), and [Attachment 6](#)).

1.12. Unsatisfactory Performance. NOTE : This paragraph is for reference only and duplicates information in AFI 11-202V2, allowing the evaluator a single-source instruction for critical phases of the evaluation. When a conflict occurs, use AFI 11-202V2.

1.12.1. Conduct a thorough pre-mission briefing and post-mission debriefing to the examinee and applicable aircrew members on all aspects of the evaluation.

1.12.2. Immediately correct breaches of flying safety or flight discipline. When an examinee jeopardizes safety of flight, the evaluator may assume the duties of that aircrew member. This does not mean the flight examiner must assume the examinee’s position any time unsatisfactory performance is observed.

1.12.3. Assign a qualification level of “Q-3” for unsatisfactory performance in any critical area/sub area or if the flight examiner assumes the examinee’s duties.

1.12.4. Immediately notify the examinee’s squadron commander/operations officer and flight commander, if available, when less than Q-1 performance is observed.

1.12.5. Unsatisfactory performance in a non-critical area/subarea will result in no higher than a qualification level “Q-2.”

1.12.6. Flight examiners observing unsatisfactory performance by a crewmember other than the examinee (including one in a different crew position) will comply with the requirements in AFI 11-202V2.

1.13. Conduct of Evaluations.

1.13.1. Flight examiners will pre-brief the examinee on the conduct, purpose, requirements of the evaluation, and all applicable evaluation criteria. Flight examiners will then evaluate the examinee in each graded area/subarea.

1.13.1.1. Flight examiners should not evaluate personnel they have primarily trained, recommended for upgrade evaluation, or who render their effectiveness/performance reports.

1.13.2. Unless otherwise specified, flight examiners may conduct the evaluation in any crew position/seat, which will best enable the flight examiner to observe the examinee's performance.

1.13.3. Note discrepancies and deviations from prescribed tolerances and performance criteria during the evaluation. Compare the examinee's performance with the tolerances provided in the grading criteria and assign an appropriate grade for each area.

1.13.3.1. An evaluation will not be changed to a training mission to avoid documenting substandard performance, nor will a training mission be changed to an evaluation.

1.13.3.2. The judgment of the flight examiner, guidance provided in AFI 11-202V2, and this instruction will be the determining factors in assigning an overall grade. The flight examiner will thoroughly critique all aspects of the flight. During the critique, the flight examiner will review the examinee's overall rating, specific deviations, area/sub area grades assigned, and any additional training required.

1.13.3.3. In the event of unsatisfactory performance, the flight examiner will determine additional training requirements. Normally, additional training will not be accomplished on the same flight.

EXCEPTION: Additional training on the same flight is acceptable when, in the evaluator's judgement, unique situations presenting valuable training opportunities (i.e., thunderstorm avoidance, crosswind landings, etc.) exist. This option requires utmost flight examiners' discretion and judicious application. When used, the examinee must be informed of when the additional training begins and ends.

1.13.3.4. When evaluations are less than Q-1 performance, the flight examiner will debrief the examinee and examinee's commander (supervisor). Notify the squadron commander/operations officer and flight commander/chief, if available.

1.13.4. A flight examiner other than the one who administered the original evaluation will normally administer rechecks.

1.13.5. The 89 AW VC-25A, C-32A, C-9C, C-20B/C/H, C-137C and C-37A contracted simulators may be used to accomplish additional training and re-checks. Areas for additional training and re-checks should be limited to those areas/sub areas that can be realistically accomplished in the contracted simulator.

1.14. Use of AF Form 3862, Aircrew Evaluation Worksheet. Units (normally OGV) will overprint AF Form 3862, using the examples at [Attachment 2](#), [Attachment 3](#), [Attachment 4](#), [Attachment 5](#), and [Attachment 6](#), to use as an evaluation worksheet. Copy each title, area number and text (in the order illustrated), and shading to the appropriate blocks. Units may add special interest items and/or local evaluation requirements. In-flight, use the worksheet to ensure all required areas are evaluated. Record positive and negative trend information and aircrew member's performance. File the worksheet or draft copy of the AF Form 8 in the aircrew member's Flight Evaluation Folder (FEF) immediately after the flight

evaluation as a temporary record of the evaluation results. Maintain until the finished AF Form 8 is added to the FEF, then discard.

1.15. Aircrew Testing. See specific testing requirements in AFI 11-202V2 and include the following:

- 1.15.1. Open Book Exam. Requisite for all QUAL evaluations.
- 1.15.2. Closed Book Exam. Requisite for all QUAL evaluations. Contractor training tests may satisfy open book testing requirements.
- 1.15.3. Instrument Exam. Requisite for all INSTM evaluations.
- 1.15.4. Initial Instructor Exam: Requisite for initial instructor evaluation. This exam will be produced by 89 OG/OGV for specific crew positions.
- 1.15.5. Boldface/Recall. Requisite for all QUAL evaluations.

1.16. 89 AW Evaluation Profile(s). Evaluators will complete all required areas of the flight evaluation worksheet in addition to the areas required for a specific MDS.

- 1.16.1. 89 OGV will insure simulator profiles used include all areas/subareas that are ATD creditable.
- 1.16.2. As a minimum, flight evaluation profiles will include all areas not ATD creditable. Profiles will be comprehensive enough to limit verbally evaluating sub areas.

1.17. Difference Qualification/Certification--Equivalent MDS/Model Aircraft.

1.17.1. Individuals qualifying in one series (who are already qualified in another series of the same design aircraft i.e., C-20B/C/H) require a difference training according to AFI 11-2SAMV1, *Special Air Missions (SAM) Aircrew Training*, and certification (evaluation if specified). The certification (evaluation, if specified) requirements should cover only the areas different in the model being operated, provided the individual is already current and qualified in the MDS. See each crewmember's chapter and the following:

1.17.1.1. Initial. When an evaluation is required, use AF Form 8 and complete the training and a SPOT evaluation. If an in-flight evaluation is not required (training and certification only), make an entry on the AF Form 1381, **United States Air Force Certificate of Aircrew Training**, (Section 1, Tab 1) in the individual's FEF. Do not make a Form 942 entry unless a flight evaluation was administered. Example: a C-20B check out in the C-20H will complete difference training, is certified by Sq/CC by annotating AF Form 1381, C-20H-Qualified, according to AFI 11-202V2/AMC1.

1.17.1.2. Periodic. Crewmembers maintaining qualification in multiple series of the same design aircraft, who complete one evaluation according to the appropriate crewmember chapters, satisfy the periodic QUALIFICATION/MISSION evaluation requirements. For closed and open book examinations add representative questions for each model from the respective flight manuals. The Evaluator will include a discussion on aircraft series differences (i.e. performance, systems, and limitations).

1.17.1.3. The C-37A is considered the same MDS as the C-20 series for evaluation/training purposes. Difference training from the C-20B to the C-20H or C-37A will be in accordance with the HQ AMC/DOT-approved difference training course.

1.18. Senior Officer Requirements. See AFI 11-202V1, *Aircrew Training*, AFI 11-401, *Flight Management*, and include the following:

1.18.1. Senior officers include the 89 AW/CC, 89 AW/CV, 89 OG/CC, 89 PPO/CC, and the general officers identified to fly 89 AW-assigned aircraft according to AFI 11-2SAMV3, *Special Air Missions (SAM) Operations Procedures*. This guidance assumes the senior officer is current in physiological training and the flight physical examination.

1.18.2. Unsupervised flying by senior officers. Senior officers may fly 89 AW aircraft without the supervision of an instructor pilot under the following conditions:

1.18.2.1. The senior officer must complete a valid initial training course (not to include a senior officer course).

1.18.2.2. The senior officer must pass an initial AF Form 8 evaluation.

1.18.2.3. The senior officer must maintain flying training level (FTL) “A” flying currency.

NOTE: Senior officers may only declare one aircraft as their primary aircraft for unsupervised status.

1.18.3. Senior officers flying with passengers. Senior officers may fly 89 AW aircraft with passengers on board under the following conditions:

1.18.3.1. The senior officer meets the requirements of paragraph [1.18.1.](#)

1.18.3.2. Or:

1.18.3.2.1. The senior officer must complete a valid initial training course (senior officer courses fit this requirement).

1.18.3.2.2. The senior officer must receive a flight evaluation with AF Form 8, **Certificate of Aircrew Qualification**.

1.18.3.2.3. The senior officer must maintain flying training level “E” flying currency.

1.18.3.2.4. The senior officer must fly under direct supervision of an instructor pilot.

NOTE: There is no limit to the number of aircraft a senior officer may fly under these conditions.

1.18.4. The 89 AW/CC, 89 AW/CV, 89 OG/CC, PPO/CC may fly any 89 AW aircraft when under the direct supervision of an instructor with no passengers on-board and after completing ground egress instruction from a qualified instructor pilot.

1.19. Multiple Qualification(s). Approval authority for multiple qualification, also called “conversion” in two or more different MDS aircraft (e.g., C-20B and C-9C) is according to AFI 11-202V1, *Aircrew Training*.

1.19.1. Multiple-qualified aircrew (except FA and CSO) will complete the appropriate MDS aircraft’s AFI 11-2MDS Volume 1 requirements and an evaluation in each aircraft.

1.19.2. Flight Attendant (FA) and Communication Systems Operators (CSO). See waiver below and the appropriate [Chapter 5](#) or [Chapter 6](#) and the following:

WAIVER: Reference AFI 11-202V2, paragraph 4.13.3. Flight Attendants (FA) and Communication Systems Operators (CSO) will require one 17-month evaluation in any MDS, for which they are multiple, qualified. Authority: AF/XO. Expiration date: Indefinite.

1.19.3. FA and CSO qualified in more than one MDS aircraft will normally alternate their periodic QUALIFICATION/MISSIONS evaluation between MDS-series aircraft. For example, a C-20B and C-9 qualified 1ST FA completes a QUAL/MSN in the C-9, followed by INIT QUAL/MSN in multiple-qualified C-20B aircraft. On the next 17-month cycle, complete an evaluation in either aircraft.

Chapter 2

PILOT EVALUATIONS

2.1. General. This chapter standardizes initial, periodic, and re-qualification evaluations, including the requirements for instrument, qualification, mission, and instructor evaluations.

2.2. Instrument Evaluations. Conduct 89 AW assigned pilot instrument evaluations in the simulator if feasible. Normally evaluate circling and PAR approach (if available), in conjunction with the in-flight qualification evaluation. Include all areas under INSTRUMENT including:

2.2.1. Evaluate first pilots and aircraft commanders on at least one instrument approach and landing in both left and right seats.

2.2.2. Only one precision approach is required. One non-precision approach, in addition to a GPS approach (in FMS-equipped aircraft) is also required.

2.3. Qualification/Mission Evaluations. (Initial, Periodic, and Requalification). Dual log the mission evaluation with qualification/requalification requirements. Include all areas under GENERAL and QUALIFICATION/MISSION.

2.3.1. Simulator Evaluations. Normally conduct a simulator evaluation in conjunction with all initial, periodic and re-qualification evaluations, unless circumstances dictate otherwise. (For example, availability of the simulator and simulator fidelity for all applicable aircrew members). Use a contractor-developed scenario or a unit Stan/Eval approved and flight examiner provided scenario. 89 AW VC-25A, C-32A, C-9C, C-20B/C/H, C-137C and C-37A flight examiner provided scenarios must be coordinated with the contractor a minimum of one day before the evaluation to ensure compatibility with ATD software. Evaluate areas/sub-areas as ATD creditable training events in AFI 11-2SAMV1, *Special Air Missions (SAM) Aircrew Training*, in the Simulator and areas that may be evaluated realistically.

2.3.2. Evaluator Notes.

2.3.2.1. Evaluate pilots in a random selection of abnormal and emergency procedures and Bold Face/Recall items.

2.3.2.2. Evaluate all pilots on an all engine/engine out approach and missed approach.

2.3.2.3. Evaluate all pilots in abort and Engine Failure Takeoff Continued (EFTOC) procedures. If not possible, verbal evaluations are permitted.

2.3.3. Receiver A/R. (VC-25 only) Rendezvous or closure from a minimum of 1 NM is required. Initial and re-qualification pilots will demonstrate 15-minutes of contact time within a 30-minute period of arriving in the pre-contact position. Evaluate ACs in left seat. Evaluate instructors in either seat. During periodic evaluations, no time minimum of contact is required, however the evaluatee must be able to demonstrate sustained stability in the contact position. Conduct a portion of the evaluation with tanker autopilot off.

2.3.3.1. The Presidential Pilot may waive Area 24 due to aircraft mission and maintenance demands.

2.3.3.2. Evaluate first pilots on first pilot duties.

2.3.4. Senior Staff Evaluations. All Senior Staff Officer initial, periodic and requalification evaluations will include:

2.3.4.1. All areas under GENERAL, QUALIFICATION/MISSION except Area 16, Landings (in the right seat), Area 19, Engine Out Operations, Area 22, Other Emergency Procedures, and Area 24, Receiver A/R.

2.3.4.2. Senior Staff Officers not qualified in Area 24 may not occupy a pilot's seat during Receiver A/R with passengers onboard.

2.3.4.3. All areas under INSTRUMENT.

2.3.4.4. Evaluate Senior Staff Officers in a random selection of Bold Face/Recall items, abort and EFTOC.

2.4. Additional Mission Evaluations.

2.4.1. Enroute Evaluation. All initial, periodic and requalification aircraft commanders will receive an ENROUTE evaluation. The enroute evaluation will consist of at least two mission legs, an instrument approach, and landing. The enroute may be flown in CONUS or theater, but must have a different departure and arrival base. Colonel (O-6) or higher incumbents of wing, OG, and HQ flying positions do not require enroute mission evaluation unless flying "in command."

2.4.1.1. Annotate AF Form 8 as SPOT evaluation (do not include an expiration date) and add remarks, "Enroute-Qualified."

2.4.1.2. Unit squadron commander may waive this additional mission evaluation requirement for aircraft commanders previously qualified on other 89 AW aircraft.

2.4.1.3. Multi-qualified aircraft commanders require an ENROUTE mission evaluation on only one 89 AW aircraft.

2.5. Instructor Evaluation (Initial, Periodic, or Requalification). Flight examiners will place particular emphasis on the examinee's ability to recognize student difficulties and provide timely, effective, corrective action. As a minimum, demonstrate and instruct a variety of instrument/visual approaches. Conduct initial or re-qualification instructor evaluations with a qualified pilot occupying the other seat. The examinee will normally occupy the right seat.

2.5.1. Include all areas under GENERAL, QUALIFICATION/MISSION, and INSTRUCTOR.

2.5.2. Pilots, who desire to realign their instrument, qualification/mission evaluation during the initial instructor evaluation must also demonstrate all required areas/subareas in "INSTRUMENT" and complete all required requisites.

2.5.3. Receiver A/R. During initial/re-qualification instructor evaluations include 10-minutes of contact time within a 20-minute period of arriving in the pre-contact position. Conduct a portion of the evaluation with tanker autopilot off. Limited inadvertent disconnects are permissible during a boom limits demonstration and therefore, will not be used as a measure of air refueling qualification.

2.5.4. Periodic instructor evaluations will be administered in conjunction with required instrument and qualification evaluations and require all areas/subareas in GENERAL, QUALIFICATION/MISSION, INSTRUMENT, and INSTRUCTOR.

2.5.5. During Receiver A/R, limited inadvertent disconnects are permissible during a boom limits demonstration and should not detract from the examinees' performance.

2.6. Emergency Procedures Evaluation (EPE). Normally evaluate a pilot's knowledge of emergency procedures and systems knowledge in the simulator portion of all INSTM/QUAL/MSN evaluations (see paragraph 1.9.6.).

2.7. Additional Information.

2.7.1. Pilots may conduct evaluations when scheduled as primary aircrew members.

2.7.2. Instructor and flight examiner pilots receiving periodic evaluations may be evaluated in either seat, but are not required to be evaluated in both.

2.8. Pilot Grading Criteria.

2.9. GENERAL.

Area 1, Directives and Publications.

- Q** Possessed a high level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted.
- Q-** Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

Area 2, Mission Preparation/Planning/Performance.

- Q** Checked all factors applicable to flight such as: weather, NOTAMs, alternate airfields, airfield suitability, fuel requirements, charts, etc. Displayed a high level of knowledge of performance capabilities and operating data. Evaluate the performance data intended for use during takeoff/landing after final adjustments and corrections have been made:
VI, Vr, V2, flap retract, slat retract, Vmm: +/-3 KIAS
NI setting: +/-0.3%, EPR +/- 0.15
Critical Field Length (CFL): +/-500 feet and suitable for takeoff/landing
Landing speeds: +/-3 KIAS
- Q-** Made minor errors or omissions in checking all factors that could have detracted from mission effectiveness. Marginal knowledge of performance capabilities and/or operating data. Performance calculations exceeded Q limits but did not exceed:
VI, Vr, V2, flap retract, slat retract, Vmm: +/-5 KIAS
NI setting: +/-0.6%, EPR +/- .20
Critical Field Length (CFL): +/-800 feet and suitable for takeoff/landing
Landing speeds: +/-5 KIAS

- U Made major errors or omissions, which would have prevented a safe or effective mission. Unsatisfactory knowledge of performance capabilities and/or operating data. Performance calculations exceeded Q- limits.

Area 3, Use of Checklists.

- Q Consistently used and called for the correct checklist and gave the correct response at the appropriate time throughout the mission.
- Q- Checklist responses were untimely and/or crewmember required continual prompting for correct response.
- U Used or called for incorrect checklist or consistently omitted checklist items. Unable to identify the correct checklist to use for a given situation. Did not complete checklist prior to event.

Area 4, Safety Consciousness (Critical).

- Q Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
- U Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Attempted to operate the aircraft in a dangerous manner.

Area 5, Judgment/Compliance (Critical).

- Q Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.
- U Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Failed to comply with a procedure that could have jeopardized safety or mission success.

Area 6, Crew Coordination/Crew Resource Management (CRM). See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF Form 4031, **CRM Skills Criteria Training/Evaluation**, as a reference.

- Q Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers' duties and responsibilities. Effectively applied CRM skills throughout the mission.
- Q- Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities.
- U Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight.

Area 7, Communication Procedures.

- Q Complete knowledge of, and compliance with the correct communications procedures. Makes radio and interphone transmissions concise with proper terminology. Complied with and acknowledged all required instructions including successful operation of the IFF/SIF Mode 4.

- Q-** Occasional deviations from procedures that required re-transmissions or resetting codes. Slow in initiating or missed several required radio calls. Transmissions contained extraneous matter, were not in proper sequence, or used non-standard terminology. Difficulty configuring/coding IFF/SIF Mode 4 without mission impact.
- U** Incorrect procedures or poor performance caused confusion and jeopardized mission accomplishment. Omitted numerous radio calls. Unable to configure/code IFF/SIF including Mode 4 with direct impact on mission success.

Area 8, Life Support Systems/Egress.

- Q** Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated and emphasized the proper operating procedures used to operate aircraft egress devices such as doors, windows, hatches, slide rafts, and escape ropes/pulleys.
- Q-** Limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
- U** Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices or egress the aircraft.

Area 9, Knowledge/Completion of Forms.

- Q** All required forms and/or flight plans were complete, accurate, readable, accomplished on time and IAW applicable directives. Related an accurate debrief of significant events to applicable agencies (intelligence, maintenance, etc.)
- Q-** Minor errors on forms and/or flight plans did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- U** Did not accomplish required forms and/or flight plans. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.

Area 10, Airmanship/Situational Awareness.

- Q** Executed the assigned mission in a timely, efficient manner. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with a sense of understanding and comprehension.
- Q-** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.
- U** Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

2.10. QUALIFICATION/MISSION. Use the criteria as a general tolerances for airspeed, altitude, and heading/course in [Table 2.1](#).

Table 2.1. General Pilot Tolerances.

Use the following criteria as general tolerances for airspeed, altitude, and heading/course:	
Q	<i>Airspeed: +10/-5 KIAS</i> <i>Altitude: +/-100 feet</i> <i>Heading/Course: +/-5 degrees</i>
Q-	Exceeds Q criteria but does not exceed: <i>Airspeed: +15/-5 KIAS</i> <i>Altitude: +/-200 feet</i> <i>Heading/Course: +/-10 degrees</i>
U	Exceeds Q- criteria.
<p>NOTE 1: Airspeed tolerances apply when a specific airspeed has been assigned by Air Traffic Control or prescribed in the flight manual. Airspeed “minus” tolerances are based on minimum maneuvering speed for aircraft configuration.</p> <p>NOTE 2: Add 50 feet (when practical) and 2 degrees to “all engines operating” criteria for “operations with an engine out” criteria.</p>	

Area 11, Ground Operations/Taxi.

- Q** Established and adhered to station, start engine, taxi, and take-off time to assure thorough preflight, check of personal equipment, crew/passenger briefings, etc. Accurately determined readiness of aircraft for flight. Completed all systems pre-flight/post-flight inspections according to flight manual, AFI 11-218, *Aircraft Operations and Movement on the Ground*, and local procedures.
- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U** Crew errors directly contributed to a late takeoff that degraded the mission. Failed to accurately determine readiness for flight. Failed to preflight/post-flight a critical component or could not conduct a satisfactory preflight/post-flight inspection.

Area 12, Takeoff.

- Q** Maintained smooth, positive aircraft control throughout the takeoff. Performed the takeoff IAW flight manual and as published/directed.
- Q-** Minor deviations from published procedures without affecting safety of flight. Control was rough or erratic. Hesitant in application of procedures/corrections.
- U** Takeoff was potentially dangerous. Exceeded aircraft/systems limitations. Failed to establish proper climb attitude. Excessive deviation from intended flight path. Violated flight manual procedures.

Area 13, Radar Operations/Weather Avoidance/Windshear.

- Q** Effectively demonstrated procedures for operating weather radar. Updated weather radar/analysis throughout the mission. Highly knowledgeable of windshear detection and avoidance equipment. Used all available sources to determine if and/or to what degree severe weather conditions exist. Complied with all weather separation and windshear avoidance procedures.
- Q-** Minor deviations observed when operating weather radar. Did not update radar/weather analysis during worsening weather conditions. Limited knowledge of windshear detection and avoidance equipment.
- U** Unable to demonstrate proper use of weather radar. Failed to update radar/weather analysis during the mission. Displayed unsatisfactory knowledge of windshear detection and avoidance equipment. Failed to comply with weather separation or windshear avoidance directives that could have jeopardized safety or mission success.

Area 14, Fuel Planning/Conservation.

- Q** Possessed a high level of knowledge of all applicable aircraft publications and directives and understood how to apply both to enhance fuel conservation and fuel planning. Successfully applied fuel conservation procedures in all areas of the mission.
- Q-** Possessed some knowledge of applicable aircraft publications and directives and understood how to apply both to enhance fuel conservation and fuel planning. Successfully applied some fuel conservation procedures, but failed to apply fuel conservation procedures in all areas of the mission.
- U** Unaware of fuel conservation procedures. Unable to fuel plan. Failed to apply fuel conservation procedures in the mission.

Area 15, VFR Pattern.

- Q** Performed traffic pattern and turn to final/final approach IAW published procedures. Aircraft control was smooth and positive. Constantly cleared area of intended flight.
- Q-** Performed traffic pattern and turn to final/final approach with minor deviations to procedures as published/directed. Aircraft control was safe but not consistently smooth and positive. Over/under shot final approach, but was able to intercept normal glide path. Adequately cleared area of intended flight.
- U** Did not perform traffic pattern and/or turn to final/final approach IAW published procedures. Displayed erratic aircraft control. Did not clear area of intended flight.

Area 16, Landings. Includes subareas 16A, Full Flap; 16B, Partial Flap, 16C, Engine Out; 16D, Touch and Go, and 16E, Right Seat.

NOTE 1: Specific items to evaluate include threshold altitude/airspeed, runway alignment, flare, touchdown, and crosswind landings.

NOTE 2: Airspeed tolerances apply to computed threshold speed.

NOTE 3: Add 5 KIAS, 50 feet (when practical), and 2 degrees to all engines operating criteria for operations with an engine out.

- Q Performed landings as published/directed IAW flight manual and met the following criteria:
Airspeed: +5/-0 KIAS
Touchdown zone: 800-3,000 feet
Centerline: +/-15 feet left or right
Threshold Crossing Height (TCH): +25/-0 feet
- Q- Performed landings with minor deviation to procedures as published/directed. Landed in a slight crab. Exceeded Q criteria but not the following:
Airspeed: +10/-5 KIAS
Touchdown zone: Threshold-3,500 feet
Centerline: +/-25 feet left or right
TCH: +50/-0 feet
- U Landing not performed as published/directed. Exceeded Q- criteria.

Area 17, Landing Roll/Braking/Reverse Thrust.

- Q Performed as published/directed IAW flight manual. Braking action and reverse thrust actuation prompt and smooth.
- Q- Performed landings with minor deviation to procedures as published/directed. Braking action and reverse thrust actuation unnecessarily delayed or not smooth.
- U Landing not performed as published/directed. Braking or reverse thrust excessively delayed or actuated prior to touchdown.

Area 18, All Engine Go-Around (GA). Not required if Engine-out GA (Area 20) is evaluated.
Table 2.1. NOTE 3 tolerances apply. FP and above only.

- Q Initiated and performed go-around promptly and IAW flight manual and directives. Applied smooth control inputs. Acquired and maintained a positive climb.
- Q- Slow or hesitant to initiate go-around. Slightly over-controlled the aircraft. Minor deviations did not affect mission accomplishment or compromise safety.
- U Did not initiate go-around when appropriate or directed. Major deviations or misapplication of procedures could have led to an unsafe condition.

Area 19, Engine Out Operations. FP and above only. Use approach criteria for the type of approach being flown and the following:

- Q Proper control inputs were used to correct asymmetric condition. Aircraft was properly trimmed. Proper consideration was given to maneuvering the aircraft with regard to the engine out condition. Maintained criteria in **Table 2.1. (NOTE 2)**.
- Q- Minor deviations in aircraft control allowed the aircraft to occasionally fly uncoordinated flight. Momentary deviated from criteria in **Table 2.1. (Note 2)**.
- U Aircraft was not properly trimmed. Aircraft control was erratic and consistently resulted in uncoordinated flight. Maneuvering the aircraft with regard to the engine out condition was potentially unsafe. Exceeded Q- criteria in **Table 2.1. (NOTE 2)**.

Area 20, Engine Out GA/Engine Fail Takeoff Continued. FP and above only.

- Q Performed all required procedures IAW the flight manual and directives. Applied smooth, positive, and coordinated control inputs. Rudder and aileron inputs were in correct direction.

Q- Procedural errors were made which did not affect safety. Aircraft control was not consistently smooth and positive. Rudder and aileron inputs were in correct direction but some over/under control.

U Rudder and/or aileron inputs were incorrect. Exceeded Q- criteria.

Area 21, Boldface Emergency Procedures/Recall (Critical).

Q Correct, immediate responses. Maintained aircraft control. Coordinated proper crew actions.

U Incorrect sequence, unsatisfactory response, or unsatisfactory performance of corrective actions.

Area 22, Other Observed Emergency Procedures.

Q Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used available aircrew aids and checklists.

Q- Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.

U Attempted to exceed limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklists or available aids effectively.

Area 23, Systems Operations/ Knowledge/Limitations.

Q Demonstrated/explained a complete knowledge of aircraft systems operations/limitations and proper procedural use of systems.

Q- Marginal knowledge of aircraft systems operations and limitations in some areas. Used individual technique instead of established procedure and was unaware of differences.

U Unsatisfactory systems knowledge. Unable to demonstrate/explain the procedures for aircraft systems operations.

Area 24, Receiver Air Refueling (see paragraph 2.3.3.1.).

Q Performed maneuver IAW published procedures. Aircraft control was smooth and positive. Constantly cleared area of intended flight.

Q- Performed maneuver with minor deviations to published procedures. Aircraft control was safe but not consistently smooth and positive. Adequately cleared area of intended flight.

U Did not perform maneuver IAW published procedures. Displayed erratic aircraft control. Did not clear area of intended flight.

2.11. INSTRUMENT. Use the following criteria as general tolerances for airspeed, level-off altitude, and heading/course with all engines operating:

Q *Airspeed: +10/-5 KIAS*
Level-off Altitude: +/-100 feet
Heading/Course: +/-5 degrees

Q- *Exceeds Q criteria but does not exceed:*

Airspeed: +15/-5 KIAS

Level-off Altitude: +/-200 feet

Heading/Course: +/-10 degrees

U Exceeds Q- criteria.

NOTE 1: Airspeed tolerances apply when a specific airspeed has been assigned by Air Traffic Control or prescribed in the flight manual. Airspeed “minus” tolerances are based on minimum maneuvering speed for aircraft configuration.

NOTE 2: Add 5 KIAS, 50 feet (when practical), and 2 degrees to all engines operating criteria for operations with an engine out criteria.

Area 25, Instrument Departure/SID.

Q Complied with all restrictions or controlling agency instructions. Made all required reports. Applied course/heading corrections promptly. Demonstrated smooth, positive control.

Q- Minor deviations in navigation occurred during departure. Slow to comply with controlling agency instructions or unsure of reporting requirements. Slow to apply course/heading corrections. Aircraft control was not consistently smooth and positive.

U Failed to comply with published/directed departure, or controlling agency instructions. Accepted an inaccurate clearance. Aircraft control was erratic.

Area 26, Enroute Navigation/FMS (If installed).

Q Satisfactory capability to navigate using all available means. Used appropriate navigation procedures. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace.

Fix-to-Fix: +/-3 NM

TACAN/VOR-DME Arc: +/-2 NM

Q- Minor errors in procedures/use of navigation equipment. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Slow to adjust for deviations in time and course. Exceeded Q criteria but not by more than the following:

Fix-to-Fix: +/-5 NM

TACAN/VOR-DME Arc: +/-4 NM

U Major errors in procedures/use of navigation equipment. Could not establish position. Failed to recognize checkpoints or adjust for deviations in time and course. Did not remain within the confines of assigned airspace. Exceeded Q- criteria.

Area 27, Holding.

Q Performed entry and holding IAW published procedures and directives.

Q- Performed entry and holding procedures with minor deviations. Exceeded Q criteria but not (see instrument tolerances).

U Holding was not IAW flight manual, directives, or published procedures. Exceeded Q- criteria.

Area 28, Use of NAVAIDs.

Q Ensured NAVAIDs were properly tuned, identified, and monitored.

Q- Some deviations in tuning, identifying, and monitoring NAVAIDs.

U Did not ensure NAVAIDs were tuned, identified, and monitored.

Area 29, Descent/Arrival.

Q Performed descent as directed. Complied with all flight manual, controlled-issued, or STAR restrictions in a proficient manner. Accomplished all required checks.

Q- Performed descent as directed with minor deviations that did not compromise mission safety. Slow to accomplish required checks.

U Performed descent with major deviations. Did not accomplish required checks. Erratic corrections. Exceeded flight manual limitations.

Area 30, Precision Approaches. Includes subareas PAR/ILS/MLS.

NOTE 1: Use the following criteria as general tolerances for airspeed, altitude, heading, glide slope, and azimuth:

Q *Airspeed: +10/-5 KIAS*

Altitude: Initiated missed approach at decision height +50/-0 feet

Heading: +/-5 degrees of controller's instructions (PAR)

Glide Slope: Within one dot (ILS)

Azimuth: Within one dot (ILS)

Q- *Exceeds Q criteria but does not exceed:*

Airspeed: +15/-5 KIAS

Altitude: Initiated missed approach at decision height +100/-0 feet

Heading: +/-10 degrees of controller's instructions (PAR)

Glide Slope: Within one dot low, two dots high (ILS)

Azimuth: Within two dots (ILS)

U Exceeds Q- criteria.

NOTE 2: Airspeed tolerances are based on computed approach speed.

NOTE 3: Add 5 KIAS, 50 feet (when practical), and 2 degrees to all engines operating criteria for operations with an engine out criteria.

Subarea 30A, PAR. If available, else verbally evaluate.

Q Approach was IAW published procedures. Smooth and timely response to controller's instructions. Established initial glide path and maintained with only minor deviations. Complied with decision height. Position would have permitted a safe landing. Elevation did not consistently exceed slightly above or slightly below glide path.

Q- Performed approach with minor deviations. Slow to respond to controller's instructions and make corrections. Improper glide path control. Complied with decision height. Position would have permitted a safe landing. Elevation did not exceed well above or well below glide path.

U Approach not IAW flight manual, directives, or published procedures. Erratic corrections. Did not respond to controller's instructions. Did not comply with decision height and/or position would not have permitted a safe landing. Erratic glide path control. Exceeded Q- criteria.

Subarea 30B, ILS/MLS/GPS.

- Q** Approach was IAW published procedures. Smooth and timely corrections to azimuth and glide slope. Complied with decision height. Position would have permitted a safe landing. Maintained glide path with only minor deviations.
- Q-** Performed approach with minor deviations. Slow to make corrections. Slow to comply with decision height. Position would have permitted a safe landing. Improper course/glide path control.
- U** Approach not IAW flight manual, directives, or published procedures. Erratic corrections. Did not comply with decision height and/or position at decision height would not have permitted a safe landing. Exceeded Q- criteria.

Subarea 30C, CAT II/III ILS. Use criteria in Subarea 30B and requirements in AFI 11-2SAMV3, Chapter 6.

Area 31, Non-Precision Approaches. Includes Subarea 31A, NDB; 31B, Localizer/BC, 31C, ASR; 31D, TACAN, and 31E TACAN/VOR.

NOTE 1: Use the following description and criteria as general tolerances for airspeed, altitude at MDA, heading, course, timing, and distance with all engines operating.

- Q** Approach was IAW published procedures. Used appropriate descent rate to arrive at MDA at or before VDP. Position would have permitted a safe landing. Smooth and timely response to controller's instructions (ASR).

Airspeed: +10/-5 KIAS

MDA: +100/-0 feet

Course: +/-5 degrees at MAP (NDB, VOR, TACAN), less than one dot deflection (LOC)

Timing: Compute/adjusted timing to determine MAP within 20 seconds (when required).

Distance: Determined MAP within +/-0.5 Miles

- Q-** Performed approach with minor deviations. Arrived at MDA at or before the MAP, but past the VDP. Position would have permitted a safe landing. Slow to respond to controller's instructions and make corrections (ASR). Exceeded Q criteria but does not exceed:

Airspeed: +15/-5

MDA: +150/-50 feet

Course: +/-10 degrees at MAP (NDB, VOR, TACAN), more than one dot but less than two dot deflection (LOC, GPS)

Timing: Compute/adjusted timing to determine MAP within 30 seconds (when required).

Distance: Determined MAP within +1/-0.5 Miles

- U** Approach not IAW published procedures. Maintained steady-state flight below the MDA, although the -50 foot limit was not exceeded. Position would not have permitted a safe landing. Failed to compute or adjust timing to determine MAP (when required). Exceeded Q- criteria.

NOTE 2: Airspeed tolerances are based on computed approach speed.

NOTE 3: Add 5 KIAS, 50 feet (when practical), and 2 degrees to all engines operating criteria for operations with an engine out criteria.

Area 32, Circling Approach.

- Q** Properly identified aircraft category for the approach and remained within the lateral limits for that category. Complied with controller's instructions. Attained runway alignment without excessive bank angles. Did not descend from the MDA until in a position to place the aircraft on a normal glide path or execute a normal landing.
- Q-** Slow to identify aircraft category for the approach and remained within the lateral limits for that category. Slow to comply with controller's instructions. Attained runway alignment, but occasionally required erratic maneuvering.
- U** Did not properly identify aircraft category or exceeded the lateral limits of circling airspace. Did not comply with controller's instructions. Excessive maneuvering to attain runway alignment was potentially unsafe. Descended from the MDA before the aircraft was in a position for a normal glide path or landing. Exceeded Q- criteria.

Area 33, Missed Approach.

- Q** Executed missed approach IAW published procedures. Complied with controller's instructions. Applied smooth control inputs.
- Q-** Executed missed approach with minor deviations to published procedures. Slow to comply with controller's instructions. Slightly over controlled the aircraft.
- U** Did not execute missed approach IAW flight manual or published procedures. Did not comply with controller's instructions. Deviation or misapplications of procedures may have led to an unsafe condition. Exceeded Q- criteria.

2.12. INSTRUCTOR.**Area 34, Instructor Ability (Critical).**

- Q** Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe maneuvers/situations.
- U** Unable to effectively communicate or provide timely feedback to the student. Gave instruction that was unsafe or contradicted published directives. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify an unsafe maneuvers/situations in a timely manner. Made no attempt to instruct.

Subarea 34A, Demonstrations of Maneuvers (Critical).

- Q** Effectively demonstrated correct procedures, systems operation, or flight maneuvers. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
- U** Ineffective or incorrect demonstration of procedures, systems operation, or flight maneuvers. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.

Sub Area 34B, Student Briefing/Critique (Critical).

- Q** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. During the critique, demonstrated an effective ability to reconstruct the flight, offer mission analysis, and provide guidance, where appropriate. Training grade reflected the actual performance of the student relative to the standard. Pre-briefed the student's next mission, if required.
- U** Briefings were marginal or non-existent. Did not review students past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

2.13. ENROUTE (Aircraft Commander Only).

Area 35, Aircraft Commander Responsibilities.

- Q** Was thoroughly aware of aircraft commander's responsibilities and performed them adequately to allow for mission accomplishment without major discrepancies.
- Q-** Was somewhat familiar with aircraft commander responsibilities. Some problems arose which could have been avoided with better leadership/planning but mission accomplishment was unaffected.
- U** Was unsure of aircraft commander responsibilities and would have hindered the accomplishment of the mission if evaluator did not intervene.

Area 36, Flight Progress.

- Q** Kept mission on time to the best of the aircrew's capabilities. Timely notification to required agencies of departure and arrival information and maintenance discrepancies.
- Q-** Minor deviation(s) in itinerary caused by insufficient management. Notification to required agencies of departure and arrival information and maintenance discrepancies were sometimes late.
- U** Mission was delayed or degraded due to insufficient management by the evaluatee. Notification to required agencies of departure and arrival information and maintenance discrepancies were not accomplished.

Area 37, Passenger Contact.

- Q** Worked closely with the passenger contact to ensure accurate itinerary details and passenger requirements.
- Q-** Slow to interact with passenger contact that caused (or led to) minor itinerary problems. Did not adversely affect mission accomplishment.
- U** Did not interact with the passenger contact. Led to miscommunications between aircrew and party, which hampered mission accomplishment.

Area 38, Enroute Procedures.

- Q** Accurately planned and performed enroute portion of mission to include compliance with ATC and diplomatic requirements.
- Q-** Planning of enroute portion of mission was not always complete. In-flight performance was adequate and no ATC or diplomatic requirements were violated.

U Enroute planning was inadequate. Violated ATC instructions or diplomatic requirements.

Area 39, Post Flight/RON Procedures.

Q Accomplished required checklists and ensured required aircraft servicing was completed. Managed crew to ensure their location and departure times were always known.

Q- Slow to complete required checklists or ensure required aircraft servicing was completed. Was sometimes unaware of a crew member's location during crew rest. Was slow to set an adequate hotel departure time and pass information to the crew.

U Did not accomplish the required checklists and aircraft was not properly serviced. Unaware of crew members' location during crew rests. Inadequate hotel departure time established causing mission delay. Communication to crew during crew rest was inadequate.

Area 40, Aircraft Security.

Q Ensured security requirements were met IAW appropriate directives.

Q- Was sometimes unaware of security requirements, but ensured they were met when researched.

U Was unaware of security requirements, which led to evaluator intervention to ensure they were met.

Area 41, Block Time Procedures.

Q Was knowledgeable of block time procedures and set realistic times. Block times (when mission dictates) were, at the top of descent, within five minutes when conditions beyond the examinee's control were favorable (i.e. ATC re-routings, weather).

Q- Was somewhat knowledgeable of block time procedures and set realistic times. Block times (when mission dictates) were, at the top of descent, within ten minutes when conditions beyond the examinee's control were favorable.

U Was not knowledgeable of block time procedures and set unrealistic times. Block times (when mission dictates) were, at the top of descent, not within ten minutes even when conditions beyond the examinee's control were favorable.

Area 42, Diplomatic Clearances.

Q Obtained or requested all required diplomatic clearances and followed up as necessary.

Q- Obtained or requested all required diplomatic clearances and failed to follow up as necessary. Omission could have delayed the mission.

U Failed to request necessary clearances and delayed the mission.

Area 43, Descent, Arrival, Approach & Landing. One each required, use appropriate Area tolerances.

2.14. UNIT. The 89 AW will include MAJCOM-specific and local evaluation areas in **Chapter 7**. Include the evaluation areas on AF Form 3862 (see paragraph **1.14.**).

Chapter 3

NAVIGATOR EVALUATIONS

3.1. General. This chapter standardizes initial, periodic, and re-qualification evaluations including requirements for navigator qualification, mission, and instructor evaluations. The examinee must satisfactorily demonstrate the ability to perform all navigator duties safely and effectively, including the operation of appropriate aircraft systems, IAW applicable flight manuals, AFI 11-2SAMV3, *Special Air Mission (SAM) Operation Procedures*.

3.2. Qualification/Mission Evaluations. For initial, periodic and requalification evaluations include all areas under GENERAL and QUALIFICATION/MISSION. Navigator mission profile must include a Category I route, or a Category II route using Category I procedures, of sufficient length to demonstrate proficiency in navigation procedures.

3.2.1. Simulator Evaluations. Do not conduct evaluations in the simulator.

3.2.2. Presidential Pilot may waive Area 22 due to aircraft mission and maintenance demands.

3.3. Instructor Evaluation (Initial, Periodic, and Requalification). Flight examiners will place particular emphasis on the examinee's ability to recognize student difficulties and provide timely, effective, corrective action.

3.3.1. Initial or requalification instructor evaluations do not require a qualified navigator occupying the primary navigation seat. As a minimum, demonstrate and instruct a variety of navigation procedures. Evaluate all areas under GENERAL, QUALIFICATION/MISSION and INSTRUCTOR.

3.3.2. Conduct periodic instructor evaluations in conjunction with qualification evaluations and evaluate all areas under GENERAL, QUALIFICATION/MISSION and INSTRUCTOR.

3.3.3. Navigator who desire to realign the QUAL/MSN evaluation expiration date during the initial (or requalification) instructor evaluation must also demonstrate all required areas/subareas and complete written examinations.

3.4. Emergency Procedures Evaluation (EPE). Normally, verbally evaluate an navigator's knowledge of emergency procedures and systems knowledge. An EPE may be conducted in-flight.

3.5. Qualification/Mission Grading Criteria.

3.6. GENERAL.

Area 1, Directives and Publications.

Q Possessed a high level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted.

Q- Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.

- U Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

Area 2, Mission Planning/Preparation

Area 2A, Chart Preparation.

- Q Required charts were constructed accurately to depict the route-of-flight IAW current directives.
- Q- Minor errors or omissions that would not have adversely affected mission accomplishment.
- U Selected an improper or obsolete chart. Chart contained errors that may have impact on the mission if not corrected.

Area 2B, Flight Planning.

- Q Obtained and verified current and accurate flight plan.
- Q- Minor errors or omissions on the flight plan that would not have a direct (adversely) affected on mission accomplishment.
- U Flight plan was not completed. Inability to demonstrate manual flight planning procedures, or computer flight plan was not reviewed. Navigator flight plan contained major errors/ omissions that may have a direct impact on mission accomplishment.

Area 2C, Fuel Planning.

- Q Knowledgeable with the type and use of data contained in the fuel planning regulation. "Enroute fuel" computation errors did not exceed 3%. Correctly computed other time and fuel analysis items. Correctly computed an ETP, when required. Completed all applicable forms. Checked all factors concerning take-off and landing data. Attended all required briefings. Complied with all directives prior to flight. Calculated mission fuel deviation =less than 5,000 lbs.
- Q- Displayed inadequate knowledge of the fuel planning regulation. Fuel computations and/or ETP were not completed or contained major errors or omissions. If constructed, range control chart had major errors and omissions. Exceeded Q- criteria. Made minor deviations completing forms. Minor omissions checking factors concerning take-off and landing data, which did not detract from safety or mission effectiveness. Did not fully comply with directives, but did not detract from safety or mission effectiveness. Calculated required mission fuel: greater than 5,000 lbs, but less than 7,000 lbs.
- U Major omissions completing applicable forms. Failed to check major factors effecting take-off and landing data. Did not comply with directives that would effect mission effectiveness. Calculated required mission fuel exceeds Q- tolerances.

Area 3, Use of Checklists.

- Q Consistently ensured all appropriate checklists were used and individual items completed in a timely manner without omission.
- Q- Completed in an untimely manner or with minor omissions, which did not detract from safety or mission effectiveness.
- U Used incorrect checklist or omitted checklist items, which detracted from safety or mission effectiveness. Did not complete checklist prior to event.

Area 4, Safety Consciousness (Critical).

- Q** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
- U** Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft in a dangerous manner.

Area 5, Judgment/Compliance (Critical).

- Q** Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Failed to comply with a procedure that could have jeopardized safety or mission success.

Area 6, Crew Coordination/Crew Resource Management (CRM). See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF Form 4031, **CRM Skills Criteria Training/Evaluation**, as a reference.

- Q** Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers' duties and responsibilities. Effectively applied CRM skills throughout the mission.
- Q-** Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities.
- U** Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight.

Area 7, Communication Procedures.

- Q** Demonstrated a thorough knowledge of communication procedures. Accomplished required calls and acknowledgments with standard terminology. Consistently backed up pilots for all ATC calls. Demonstrated satisfactory use of UHF, VHF and HF radios.
- Q-** Occasional deviation or omissions from required procedures, calls or acknowledgments. Occasional backup for ATC calls. Limited knowledge of communication equipment.
- U** Incorrect procedures or poor performance caused confusion. Did not back up pilots for ATC calls. Displayed poor operational knowledge of communication equipment.

Area 8, Life Support Systems/Egress.

- Q** Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated and emphasized the proper operating procedures used to operate aircraft egress devices such as doors, windows, hatches, slide rafts, and escape ropes/pulleys.
- Q-** Limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
- U** Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.

Area 9, Knowledge/Completion of Forms.

- Q** All required forms and/or flight plans were complete, accurate, readable, accomplished on time and IAW applicable directives. Related an accurate debrief of significant events to applicable agencies (Intelligence, Maintenance, etc.).
- Q-** Minor errors on forms and/or flight plans did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- U** Did not accomplish required forms and/or flight plans. Omitted or incorrectly reported significant information to applicable agencies due to major errors, omissions, and/or deviations.

Area 10, Airmanship/Situational Awareness.

- Q** Executed the assigned mission in a timely, efficient manner. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with a sense of understanding and comprehension.
- Q-** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.
- U** Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

Area 11, Briefings/Advisories.

- Q** Contributed to the briefing content to ensure it included all applicable information. Briefings effectively organized and presented in a logical sequence. Covered all pertinent items. Effectively used available briefing aids. In-flight briefings/advisories provided clear and concise information in a timely manner.
- Q-** Allowed omission of items pertinent but not critical to the mission. Briefings lacked continuity or contained unnecessary repetition. Some difficulty communicating clearly. Did not make effective use of available briefing aids. Dwelled on non-essential items. In-flight briefings/advisories contained minor errors or omitted non-critical information.
- U** Failed to conduct/attend required briefings. Failed to use briefing aids. Omitted essential items or did not correct erroneous information that could affect mission accomplishment. Demonstrated lack of knowledge of subject. Briefing poorly organized and not presented in a logical sequence, resulting in confusion. Presented erroneous information that would affect safe/effective mission accomplishment. Did not provide required in-flight briefings/advisories.

Area 12, Weather Avoidance/Windshear (Critical).

- Q** Recognized enroute weather hazards and avoided the hazards to meet minimum requirements in AFI 11-2SAMV3.
- U** Failed to recognize enroute weather hazards. Attempted to penetrate minimum prescribed distances which had (or potential to have) caused unnecessary passenger discomfort or wear and tear on the aircraft.

3.7. QUALIFICATION/MISSION.

Area 13, Pre-Flight.

- Q Accomplished all preflight duties with minimal errors.
- Q- Minor errors, omissions or deviations not affecting mission conduct.
- U Significant errors, omissions or deviations from prescribed checklists and procedures.

Area 14, Takeoff/Climb/Level Off/Departure.

- Q Monitored headings, airspeeds, altitudes and aircraft position throughout departure. Used a SID and/or appropriate scale departure area chart. Provided headings, ETAs, and other required information in a timely manner. Monitored appropriate radios and clearances to ensure crew compliance. Provided updated information when the clearance caused a change in the planned departure.
- Q- Monitored aircraft position, but slow to provide headings, ETAs or other required information. Performance did not degrade mission accomplishment nor compromise flight safety.
- U Did not monitor departure headings, airspeeds or altitudes. Unaware of aircraft position and unable to provide updated information when required. Did not use a SID and/or an appropriately scaled departure area chart. Allowed major deviations that degraded mission accomplishment or compromised safety.

Area 15, General Navigation/Enroute Procedures.

- Q Accurately tuned, identified, read and interpreted readings of TACAN, VOR or NDB. Consistently selected stations that afforded the best LOPs. Demonstrated thorough knowledge and understanding of radar equipment. Used correct procedures for radar operation and weather avoidance procedures.
- Q- Better use of radio aids could have enhanced navigation. Displayed weakness in fixing or plotting procedures. Demonstrated adequate knowledge of equipment, but occasionally used improper operating procedures. Had difficulty identifying radar returns.
- U Unable to accurately tune and identify radio aids. Did not understand VOR/TACAN/NDB bearing procedures or was unable to obtain position by means of radio aids. Unsatisfactory knowledge of radar equipment. Used improper operating procedures that were potentially harmful to system components.

Area 16, Grid Procedures. (Not Used)

Area 17. Navigation Equipment/Systems Operations. *NOTE:* All references to navigation systems refer to actual systems onboard unit aircraft (i.e., INS, GPS, etc)

- Q Thorough knowledge of onboard navigation system operating procedures. Effectively used navigation systems to direct the aircraft and update system as required.
- Q- Had only a basic knowledge of onboard navigation systems. Made minor errors in operation/interpretation of navigation system data. More selective updating could have increased system effectiveness.
- U Displayed inadequate knowledge of onboard navigation system procedures. Improper operation procedures could have resulted in damage to equipment or affected mission accomplishment. Failed to update or correctly interpret navigation system data.

Area 18, Enroute Planning.

- Q Remained within 10 NMs of course centerline. ETA/RETA were within 2 minutes of actual times of arrival (ATA). Accurately determined course deviation for weather.
- Q- Remained within 15 NMs of course centerline. ETA/RETA were within 3 minutes of ATA.
- U Exceeded Q- criteria and/or evaluator directed altering the aircraft heading to remain within course tolerance, clear special use airspace, or correctly deviate around weather.

Area 19, Descent, Approach Monitor, and Landing.

- Q Monitored aircraft position, approach instructions and primary approach navigation aids. Furnished headings, ETAs and other information to the pilot as required. Thoroughly understood approach and missed approach procedures. Ensured terrain clearance during approach by use of all available aids and area chart.
- Q- Monitored aircraft position but did not fully understand approach instructions/procedures. Slow to provide headings, ETAs or other appropriate information.
- U Failed to monitor aircraft position. Did not ensure terrain clearance for approach. Area chart not available.

Area 20, Radio Transmission - Usage and Discipline. See Area 7 and the following:

- Q Radio communications (both inter- and intra-cockpit) were concise, accurate, and effectively used to direct actions by the crew to update appropriate agencies of the tactical situation.
- Q- Minor terminology errors or omissions occurred, but did not significantly detract from situational awareness, threat warning, or mission accomplishment. Extraneous comments over primary and secondary radios presented minor distractions.
- U Radio communications over primary/secondary radios were inadequate or excessive. Inaccurate or confusing terminology significantly detracted from situational awareness, threat warning, or mission accomplishment.

Area 21, Emergency Procedures.

- Q Correctly analyzed, stated, and understood aircraft emergencies and performed required procedures to correct the emergency.
- Q- Correctly analyzed and understood aircraft emergencies but had difficulty stating the EP. Performed required procedures to correct the emergency.
- U Failed to analyze, state, and did not understand aircraft emergencies and/or could not perform required procedures to correct the emergency.

Area 22, Receiver Air Refueling (see paragraph 3.2.2.). Commence 10-minutes before ARCT/RZ PT and terminates at end A/R point. Evaluate a Point Parallel or Enroute Rendezvous (one required); verbally evaluate the alternative. Includes Subareas: 22A, Rendezvous; 22B, A/R Track Adherence/Altitude; and 22C, Receiver Breakaway Procedures.

- Q Rendezvous – Point Parallel: Maintained A/R track after ARIP not more than 3 NM. Directed radar closure to in-trail position under IFR conditions not more than 1 NM. Rendezvous – Enroute: Arrived over RZ PT or ARCP (as coordinated time or 15 minutes before Tanker/Receiver radio call) within 1-minute timing. Directed radar closure to in-trail position under IFR conditions not more than 1 NM. Breakaway procedures response was according to the appropriate air refueling flight manual (T.O. 1-1C-36, as appropriate).

Q- Rendezvous -- Point Parallel: A/R track after ARIP more than 3 NM but less than 6 NM. Directed radar closure to in-trail under IFR condition greater than 1 NM without mission degrade (pilot visual with tanker).

Rendezvous -- Enroute: Arrived over RZ PT or ARCP greater than 1 minute, but less than 2 minutes and failed to advise tanker of timing delay. Directed radar closure to in-trail under IFR condition greater than 1 NM without mission degrade (pilot visual with tanker).

Exceeded ATC defined A/R track boundaries with no mission degrade. Breakaway procedures had minor errors with no mission degrade.

- U** Exceed Q- tolerances. Unable to direct radar closure to tanker with mission degrade and missed rendezvous. Exceeded ATC defined A/R track boundaries or incorrect Breakaway procedures with potential for direct mission impact.

3.8. INSTRUCTOR. 89 AW instructors may instruct a fully qualified navigator or student to complete this evaluation.

Area 23, Instructor Ability/Knowledge (Critical).

- Q** Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe maneuvers/situations.
- U** Unable to effectively communicate or provide timely feedback to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe maneuvers/situations in a timely manner. Made no attempt to instruct.

Area 24, Student Briefing/Critique (Critical).

- Q** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Showed an excellent ability during the critique to reconstruct the flight, offer mission analysis, and provide guidance where appropriate. Training grade reflected the actual performance of the student relative to the standard. Pre-briefed the student's next mission, if required.
- U** Briefings were marginal or non-existent. Did not review students past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

3.9. UNIT. The 89 AW will include MAJCOM-specific and local evaluation areas in **Chapter 7**. Include the evaluation areas on AF Form 3862 (see paragraph **1.14**).

Chapter 4

FLIGHT ENGINEER EVALUATIONS

4.1. General. This chapter standardizes initial, periodic, and re-qualification evaluation requirements for second (2nd FE) and first (1st FE) flight engineer qualification. The term second flight engineer refers to those flight engineers who have completed the C-137C or VC-25 initial qualification course. C-9C, C-20B/C/H and C-37A will qualify initially as 1st FE.

4.2. Qualification/Mission Evaluations (Initial, Periodic, and Requalification). Initial, periodic and requalification evaluations include (as a minimum) the following:

4.2.1. 2nd FE (Crew position identifier--FF)--Initial: Conduct the initial evaluation on training locals/training missions. Include all areas (except those designated MF (1st FE)) under GENERAL and QUALIFICATION/MISSION and requisite exams. Upon successful completion, of the evaluation, annotate AF Form 8 remarks as “Second Engineer- qualified” and crew FF (2nd FE). This evaluation confirms the crewmember is qualified for unsupervised (2nd FE) aircrew duties.

4.2.2. 1st FE (Crew position identifier MF)—Initial: Conduct an initial first engineer QUALIFICATION/MISSION evaluation on a mission profile consisting of at least two mission legs and monitor an instrument approach, and landing. The mission profile may be flown in CONUS or theater, but must have a different departure and arrival base. Include all areas under GENERAL and QUALIFICATION/MISSION designated 1st FE. Annotate AF Form 8 remarks as “First Engineer- qualified” and crew position as MF (1st FE).

4.2.3. Periodic: Include all areas under GENERAL and QUALIFICATION/MISSION. Use 1st FE designated criteria. Complete the evaluation on one mission, if possible. Use separate line entry if more than one flight is necessary to complete evaluation according to AFI 11-202V2.

4.2.4. Multiple Qualification. (Conversion/Difference).

4.2.4.1. Difference: A Flight Engineer (FE) require a certification to gain additional qualification on the same series aircraft. The C-20B/C/H and C-37A are considered the same series see paragraph 1.17.

4.2.4.2. Conversion: A Flight Engineer (FE) may obtain additional qualification in MDS-aircraft with a designated crew complement for the FE position (e.g. primary C-137C and conversion qualified in C-9C, etc.) Approval authority is according to paragraph 1.19. Multiple qualification is only available to a previously qualified FE in their primary aircraft. Complete an initial evaluation on each aircraft with requisites. Annotate a separate AF Form 8 as a QUAL/MSN evaluation (in the flight phase) and expiration date. Annotate the Crew Position as “MF”.

4.2.4.2.1. Initial:

4.2.4.2.1.1. All areas under “GENERAL”.

4.2.4.2.1.2. QUALIFICATION/MISSION, (INSTRUCTOR, if appropriate).

4.2.4.2.1.3. Requisites: Complete a minimum 10-question Open Book and 5-question Closed Book or as specified in **Chapter 7**.

4.2.4.2.2. Periodic: See requirement at paragraph **1.19.1**.

4.2.4.2.3. Units specify requirements for an additional in-flight evaluation(s) in **Chapter 7**.

4.3. Instructor Evaluations (Initial, Periodic, and Requalification). Flight examiners will place particular emphasis on the examinee's ability to recognize student difficulties and provide timely, effective corrective action. Evaluate an instructor candidate while demonstrating and instructing a variety of FE tasks during instrument/visual approaches, departures and arrivals. Initial or re-qualification instructor evaluations should be with a qualified engineer occupying the engineer seat. The examinee may occupy the engineer seat.

4.3.1. Initial: Include all areas under GENERAL, QUALIFICATION/MISSION (1st FE criteria), and INSTRUCTOR.

NOTE: Flight engineers who desire to realign their QUAL/MSN evaluation during the initial instructor evaluation (update qualification expiration date) must "demonstrate" all areas QUALIFICATION/MISSION and complete all required written examinations.

4.3.2. Periodic: Evaluate INSTRUCTOR during all flight evaluations.

4.4. Emergency Procedures Evaluations (EPE). Normally evaluate an flight engineers knowledge of emergency procedures and systems knowledge in the simulator for all qualification evaluations. If the simulator fidelity is not feasible or not at Level C standards or better, conduct a verbal EPE evaluations.

4.5. Additional Information.

4.5.1. A Flight Engineer evaluator normally should not conduct an evaluation when scheduled as primary aircrew members.

4.6. Flight Engineer Grading Criteria.

4.7. GENERAL.

Area 1, Directives and Publications.

MF (1st FE)

- Q** Possessed a high level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted.
- Q-** Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

FF (2nd FE)

- Q** Possessed a necessary level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Knowledge level is partially proficient and not necessarily to desired levels of speed, accuracy, and safety. Publications were current and properly posted.
- Q-** Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

Area 2, Mission Preparation/Planning/Performance. FF and MF positions.

- Q** Completed all applicable forms. Checked all factors concerning take-off and landing data. Properly computed required performance data. Attended all required briefings. Complied with all directives prior to flight.
- Q-** Made minor deviations completing forms. Minor omissions checking factors concerning take-off and landing data, which did not detract from safety or mission effectiveness. Minor errors computing performance data, which did not detract from safe conditions or mission effectiveness. Did not fully comply with directives, but did not detract from safety or mission effectiveness.
- U** Major omissions completing applicable forms. Failed to check major factors effecting take-off and landing data. Major errors computing performance data. Did not comply with directives that would effect mission effectiveness.

Area 3, Use of Checklists.

MF (1st FE)

- Q** Consistently ensured all appropriate checklists were used and completed in a timely manner without omission.
- Q-** Completed in an untimely manner or with minor omissions, which did not detract from safety or mission effectiveness.
- U** Used incorrect checklist or omitted checklist items, which detracted from safety or mission effectiveness. Did not complete checklist prior to event.

FF (2nd FE)

- Q** Consistently ensured all appropriate checklists were used and completed in a minimum acceptable level of speed, accuracy, and safety without the assistance of an instructor.
- Q-** Completed in an untimely manner or with minor omissions, which did not detract from safety or mission effectiveness.
- U** Used incorrect checklist or omitted checklist items, which detracted from safety or mission effectiveness. Did not complete checklist prior to event.

Area 4, Safety Consciousness (Critical). FF and MF positions.

- Q** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
- U** Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft in a dangerous manner.

Area 5, Judgment/Compliance (Critical). FF and MF positions.

- Q** Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Failed to comply with a procedure that could have jeopardized safety or mission success.

Area 6, Crew Coordination/Crew Resource Management (CRM). FF and MF positions. See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF Form 4031, **CRM Skills Criteria Training/Evaluation**, as a reference.

- Q** Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers' duties and responsibilities. Effectively applied CRM skills on the mission.
- Q-** Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities.
- U** Poor crew coordination or unsatisfactory knowledge of other crewmembers' duties and responsibilities negatively affected mission accomplishment or safety of flight.

Area 7, Communication Procedures. FF and MF positions.

- Q** Demonstrated a thorough knowledge of communication procedures. Accomplished required calls and acknowledgments with standard terminology. Consistently backed up pilots for all ATC calls. Demonstrated satisfactory use of UHF, HF and VHF radios.
- Q-** Occasional deviation or omissions from required procedures, calls or acknowledgments. Occasional backup for ATC calls. Limited knowledge of communication equipment.
- U** Incorrect procedures or poor performance caused confusion. Did not back up pilots for ATC calls. Displayed poor operational knowledge of communication equipment.

Area 8, Life Support Systems/Egress.**MF (1st FE)**

- Q** Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated the proper operating procedures to operate aircraft egress devices.
- Q-** Limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
- U** Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.

FF (2nd FE)

- Q** Displayed minimal necessary knowledge to the desired levels of speed, accuracy, and safety for the location and use of life support systems and equipment without the assistance of an instructor. Demonstrated the proper operating procedures to operate aircraft egress devices.
- Q-** Limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.

- U Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.

Area 9, Knowledge/Completion of Forms.

MF (1st FE)

- Q All required forms were complete, accurate, readable, accomplished on time and IAW applicable directives. Related an accurate debrief of significant events to applicable agencies.
- Q- Minor errors on forms did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- U Did not accomplish required forms. Omitted or incorrectly reported significant information to applicable agencies due to major errors, omissions, and/or deviations.

FF (2nd FE)

- Q All required forms were complete, accurate, readable, and accomplished to the minimally acceptable level of speed, accuracy, and safety and IAW applicable directives. Related an accurate debrief of significant events to applicable agencies.
- Q- Minor errors on forms did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- U Did not accomplish required forms. Omitted or incorrectly reported significant information to applicable agencies due to major errors, omissions, and/or deviations.

Area 10, Airmanship/Situational Awareness.

MF (1st FE)

- Q Executed the assigned mission in a timely, efficient manner. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with a sense of understanding and comprehension.
- Q- Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used in that specific mission objectives were not achieved.
- U Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

FF (2nd FE)

- Q Executed the assigned mission in a minimally acceptable level of speed, accuracy, and safety without the assistance of an instructor. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with a acceptable sense of understanding and comprehension.
- Q- Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.
- U Decisions or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

4.8. QUALIFICATION/MISSION.

Area 11, Interior Inspection.**MF Only (1st FE)**

- Q** Timely completion of all pre-flight checks and procedures without omissions. Proper coordination with maintenance and crew when required. Ensured readiness of aircraft for flight.
- Q-** Same as above except for minor omissions or deviations which did not detract from safety or directly contribute to a late take-off.
- U** Failed to pre-flight a critical component or system. Errors, omissions or deviations directly contribute to a late take-off or detracted from safety or mission effectiveness.

Area 12, Exterior Inspection.**MF (1st FE)**

- Q** Timely completion of all pre-flight checks and procedures without omissions. Proper coordination with maintenance and crew when required. Ensured readiness of aircraft for flight.
- Q-** Same as above except for minor omissions or deviations which did not detract from safety or directly contribute to a late take-off.
- U** Failed to pre-flight a critical component or system. Errors, omissions or deviations directly contribute to a late take-off or detracted from safety or mission effectiveness.

FF (2nd FE)

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions. Proper coordination with maintenance and crew when required. Ensured readiness of aircraft for flight.
- Q-** Same as above except for minor omissions or deviations which did not detract from safety or directly contribute to a late take-off.
- U** Failed to pre-flight a critical component or system. Errors, omissions or deviations directly contribute to a late take-off or detracted from safety or mission effectiveness.

Area 13, Before Starting/Starting Engines.**MF (1st FE)**

- Q** Timely completion of all checklists and procedures without omissions.
- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U** Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

FF (2nd FE)

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions.
- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.

- U Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

Area 14, Before Taxi/Taxi.**MF (1st FE)**

- Q Timely completion of all checklists and procedures without omissions.
- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

FF (2nd FE)

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions.
- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

Area 15, Before Takeoff/Takeoff/Departure Monitoring.**MF (1st FE)**

- Q Timely completion of all checklists and procedures without omissions. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.
- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety. Did not monitor appropriate radios.

FF (2nd FE)

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.
- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U Errors directly contributed to a late takeoff that degraded the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety. Did not monitor appropriate radios.

Area 16, Climb/Cruise/Descent/Approach Monitoring.**MF (1st FE)**

- Q** Timely completion of all checklists without omission. Computed required performance data for cruise and flight maneuvers (when required). Monitored systems indicators. Informed pilot of malfunctions/ abnormalities. Monitored and adjusted engine throttles when required. Maintained aircraft CG within limits. Monitored, and informed the pilot of fuel burn and fuel remaining. Monitored appropriate radios and backed up pilots as required. Timely back up of altitudes and airspeeds. Accurately completed all required in-flight documentation.
- Q-** Same as above, except for minor procedural deviations. Occasionally monitored fuel burn. Occasional back up for radio calls, altitudes and airspeeds. Minor documentation errors.
- U** Errors directly degraded mission effectiveness or caused delays. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items. Failed to monitor or detect system malfunction/abnormal indication. Did not monitor fuel burn. Did not complete required in-flight documentation. Did not back up pilots for radio calls or altitudes/airspeeds.

FF (2nd FE)

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions. Computed required performance data for cruise and flight maneuvers (when required). Monitored systems indicators. Informed pilot of malfunctions/abnormalities. Monitored and adjusted engine throttles when required. Maintained aircraft CG within limits. Monitored, and informed the pilot of fuel burn and fuel remaining. Monitored appropriate radios and backed up pilots as required. Timely back up of altitudes and airspeeds. Accurately completed all required in-flight documentation.
- Q-** Same as above, except for minor procedural deviations. Occasionally monitored fuel burn. Occasional back up for radio calls, altitudes and airspeeds. Minor documentation errors.
- U** Errors directly degraded mission effectiveness or caused delays. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items. Failed to monitor or detect system malfunction/abnormal indication. Did not monitor fuel burn. Did not complete required in-flight documentation. Did not back up pilots for radio calls or altitudes/airspeeds.

Area 17, Landing/After Landing.**MF (1st FE)**

- Q** Timely completion of all checklists and procedures without omissions. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.
- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U** Errors directly contributed to degrading the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety. Did not monitor appropriate radios.

FF (2nd FE)

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions. Monitored engine instruments and all appropriate radios. Performed all other duties IAW the flight manual.
- Q-** Same as above except for minor procedural deviations that did not detract from mission effectiveness.

- U Errors directly contributed to degrading the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety. Did not monitor appropriate radios.

Area 18, Engine Shutdown/Before Leaving Aircraft.**MF (1st FE)**

- Q Timely completion of all checklists and procedures without omissions.
- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U Errors directly contributed to degrading the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

FF (2nd FE)

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor for completion of all checklists and procedures without omissions.
- Q- Same as above except for minor procedural deviations that did not detract from mission effectiveness.
- U Errors directly contributed to degrading the mission. Failed to complete checklists and procedures in a timely manner. Omitted major checklist items, which detracted from safety.

Area 19, Knowledge of Emergency Procedures.**Subarea 19A, Ground Emergencies.****MF (1st FE)**

- Q Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q- Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

FF (2nd FE)

- Q Operated within minimum acceptable levels of speed, accuracy, and safety limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q- Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

Subarea 19B, Take-off Emergencies.**MF (1st FE)**

- Q** Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

FF (2nd FE)

- Q** Operated within minimum acceptable levels of speed, accuracy, and safety limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

Subarea 19C, In-flight Emergencies.**MF (1st FE)**

- Q** Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

FF (2nd FE)

- Q** Operated within minimum acceptable levels of speed, accuracy, and safety limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

Subarea 19D, Landing Emergencies.**MF (1st FE)**

- Q** Operated within prescribed limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

FF (2nd FE)

- Q** Operated within minimum acceptable levels of speed, accuracy, and safety limits and correctly diagnosed problems. Performed/explained proper corrective action for each type of malfunction. Effectively used checklists and/ or available aids.
- Q-** Operated within prescribed limits but slow to analyze problems or apply proper corrective actions. Did not effectively use and/or experienced delays, omissions, or deviations in use of checklist and/or available aids.
- U** Exceeded limitations. Unable or failed to analyze problem or take proper corrective action. Did not use checklist and/or available aids.

Area 20, Boldface Emergency Procedures. (Critical).

- Q** Correct, immediate responses. Proper crew coordinated actions.
- U** Incorrect sequence, unsatisfactory response, or unsatisfactory performance of corrective actions.

Area 21, Systems Knowledge/Operation. Evaluate the following subareas:

Subarea 21A	Engines/APU
Subarea 21B	Oxygen
Subarea 21C	Fuel
Subarea 21D	Hydraulic
Subarea 21E	Flight Controls/Surfaces (Primary/Secondary)
Subarea 21F	Landing Gear/Brakes/Steering
Subarea 21G	Hatches/Doors/Exits
Subarea 21H	Pneumatic/Bleed Air
Subarea 21I	Pressurization/Air Conditioning
Subarea 21J	Anti-ice/De-ice
Subarea 21K	Windows/Windshields
Subarea 21L	Electrical/Lighting
Subarea 21M	Fire Detection/Extinguishing
Subarea 21N	ELT/Voice/Flight Data Recorder
Subarea 21O	INS/FMS/GPS
Subarea 21P	Climate/Environmental Systems
Subarea 21Q	Airframe

Subarea 21R Avionics

Subarea 21S Radios

Subarea 21T Radar/TCAS

MF (1st FE) System Tolerances.

- Q** Fully knowledgeable of system component location; able to identify basic system functions and limitations. Analyzed simulated or actual malfunctions and applied proper maintenance action; fully determined status of related systems.
- Q-** Limited knowledge of system component location; minor deviations in determining basic system functions, limitations or applying maintenance actions; adequately determined status of related systems.
- U** Inadequate knowledge of system component locations. Unable to determine basic system functions and limitations. Unable / failed to analyze simulated or actual malfunctions or applied improper maintenance action. Could not determine status of related systems.

FF (2nd FE)

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor in system component location knowledge, identification of basic system functions and limitations. Analyzed simulated or actual malfunctions and applied proper maintenance action; fully determined status of related systems.
- Q-** Limited knowledge of system component location; minor deviations in determining basic system functions, limitations or applying maintenance actions; adequately determined status of related systems.
- U** Inadequate knowledge of system component locations. Unable to determine basic system functions and limitations. Unable / failed to analyze simulated or actual malfunctions or applied improper maintenance action. Could not determine status of related systems.

Area 22, Flight Engineer Responsibilities (1st FE Only).

- Q** Was thoroughly aware of flight engineer responsibilities and performed them adequately to allow for mission accomplishment without major discrepancies.
- Q-** Was somewhat familiar with flight engineer responsibilities. Some problems arose which could have been avoided with better leadership/planning but mission accomplishment was unaffected.
- U** Was unsure of flight engineer responsibilities and would have hindered the accomplishment of the mission if evaluator did not intervene.

Area 23, Flight Progress. (MF 1st FE Only)

- Q** Kept mission on time to the best of the aircrew's capabilities. Timely notification to required agencies of departure and arrival information and maintenance discrepancies.
- Q-** Minor deviation(s) in itinerary caused by insufficient management. Notification to required agencies of departure and arrival information and maintenance discrepancies were sometimes late.
- U** Mission was delayed or degraded due to insufficient management by the evaluatee. Notification to required agencies of departure and arrival information and maintenance discrepancies were not accomplished.

Area 24, Crew Contact. (MF 1st FE Only)

- Q** Worked closely with the crew to ensure accurate itinerary details and passenger/crew requirements.
- Q-** Was slow to interact with crew, which led to minor itinerary problems. Did not adversely affect mission accomplishment.
- U** Did not interact with crew. Led to miscommunications between aircrew, which hampered mission accomplishment.

Area 25, Enroute Procedures. (MF 1st FE Only)

- Q** Accurately planned and performed enroute portion of mission requirements.
- Q-** Planning of enroute portion of mission was not always complete. In-flight performance was adequate and no requirements were violated.
- U** Enroute planning was inadequate. Violated requirements.

Area 26, Post Flight/RON Procedures. (MF 1st FE Only)

- Q** Accomplished required checklists and ensured required aircraft servicing was completed. Managed enlisted crew to ensure their location and departure times were always known.
- Q-** Slow to complete required checklists or ensure required aircraft servicing was completed. Was sometimes unaware of enlisted crew member's location during crew rest. Was slow to set an adequate hotel departure time and pass information to the enlisted crew.
- U** Did not accomplish the required checklists and aircraft was not properly serviced. Unaware of enlisted crew members' location during crew rests. Inadequate hotel departure times were set. Communication to enlisted crew during crew rest was inadequate.

Area 27, Aircraft Security. (MF 1st FE Only)

- Q** Ensured security requirements were met IAW appropriate directives.
- Q-** Was sometimes unaware of security requirements, but ensured they were met when researched.
- U** Was unaware of security requirements, which led to evaluator intervention to ensure they were met.

Area 28, Receiver Air Refueling (VC-25 Only) 1ST FE.

- Q** Maintained aircraft CG and fuel system limitations during all phases of air refueling. Timely completion of receiver air refueling checklists without omission or deviation. Planned/pre-positioned fuel in a timely manner. Correctly computed airspeeds. Monitored appropriate radios. Backed up pilots as directed.
- Q-** Same as above except minor deviations from checklist/air refueling procedures that would not detract from safety or major delay in air refueling operations.
- U** Unsatisfactory knowledge of fuel system limitations. Did not maintain aircraft CG or fuel system limitation. Incorrectly computed required airspeeds. Untimely completion of procedures which caused a major delay in air refueling operations.

4.9. INSTRUCTOR.

Area 29, Instructor Ability (Critical).

- Q** Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe maneuvers/situations.
- U** Unable to effectively communicate or provide timely feedback to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe maneuvers/situations in a timely manner. Made no attempt to instruct.

Area 30, Instructor Demonstration (Critical).

- Q** Demonstrated/explained a complete knowledge of aircraft systems operations/limitations and proper procedural use of systems.
- U** Unsatisfactory systems knowledge. Unable to demonstrate/explain the procedures for aircraft systems operations.

Area 31, Student Briefing/Critique (Critical).

- Q** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Showed an excellent ability during the critique to reconstruct the flight, offer mission analysis, and provide guidance where appropriate. Training grade reflected the actual performance of the student relative to the standard. Pre-briefed the student's next mission, if required.
- U** Briefings were marginal or non-existent. Did not review student's past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

4.10. ENROUTE (Initial Flight Engineer Only).**Area 32, Flight Engineer Responsibilities.**

- Q** Was thoroughly aware of flight engineer responsibilities and performed them adequately to allow for mission accomplishment without major discrepancies.
- Q-** Was somewhat familiar with flight engineer responsibilities. Some problems arose which could have been avoided with better leadership/planning but mission accomplishment was unaffected.
- U** Was unsure of flight engineer responsibilities and would have hindered the accomplishment of the mission if evaluator did not intervene.

Area 33, Flight Progress.

- Q** Kept mission on time to the best of the aircrew's capabilities. Timely notification to required agencies of departure and arrival information and maintenance discrepancies.
- Q-** Minor deviation(s) in itinerary caused by insufficient management. Notification to required agencies of departure and arrival information and maintenance discrepancies were sometimes late.

- U Mission was delayed or degraded due to insufficient management by the evaluatee. Notification to required agencies of departure and arrival information and maintenance discrepancies were not accomplished.

Area 34, Crew Contact.

- Q Worked closely with the crew to ensure accurate itinerary details and passenger/crew requirements.
- Q- Was slow to interact with crew, which led to minor itinerary problems. Did not adversely affect mission accomplishment.
- U Did not interact with crew. Led to miscommunications between aircrew, which hampered mission accomplishment.

Area 35, Enroute Procedures.

- Q Accurately planned and performed enroute portion of mission requirements.
- Q- Planning of enroute portion of mission was not always complete. In-flight performance was adequate and no requirements were violated.
- U Enroute planning was inadequate. Violated requirements.

Area 36, Post Flight/RON Procedures.

- Q Accomplished required checklists and ensured required aircraft servicing was completed. Managed enlisted crew to ensure their location and departure times were always known.
- Q- Slow to complete required checklists or ensure required aircraft servicing was completed. Was sometimes unaware of enlisted crew member's location during crew rest. Was slow to set an adequate hotel departure time and pass information to the enlisted crew.
- U Did not accomplish the required checklists and aircraft was not properly serviced. Unaware of enlisted crew members' location during crew rests. Inadequate hotel departure times were set. Communication to enlisted crew during crew rest was inadequate.

Area 37, Aircraft Security.

- Q Ensured security requirements were met IAW appropriate directives.
- Q- Was sometimes unaware of security requirements, but ensured they were met when researched.
- U Was unaware of security requirements, which led to evaluator intervention to ensure they were met.

4.11. UNIT. The 89 AW will include MAJCOM-specific and local evaluation areas in **Chapter 7**. Include the evaluation areas on AF Form 3862 (see paragraph **1.14.**).

Chapter 5

COMMUNICATION SYSTEMS OPERATOR (CSO) EVALUATIONS

5.1. General. This chapter standardizes initial, periodic, and re-qualification evaluations, including requirements for qualification, mission, difference, and instructor evaluation.

5.2. Qualification/Mission Evaluations.

5.2.1. Overview: Communication Systems Operators (CSO) combine an initial QUALIFICATION and MISSION evaluation during a SAM mission. The evaluation leads to unsupervised, 2nd CSO position more commonly called a BASIC qualification. A second, follow-on evaluation upgrades the position from FK (2nd CSO) to MK (1st CSO).

NOTE: The squadron commander may approve qualification on a single flight/mission to MK (1st CSO) qualification (bypass 2nd CSO).

5.2.1.1. Initial. Conduct the initial qualification evaluation on operational or training mission. Include all FK (2nd CSO) under GENERAL and QUALIFICATION/ MISSION and requisite exams. Upon successful completion indicate a crew position as FK (2nd CSO) for VC-25 and C-137C aircraft or MK (1st CSO) for C-20B/C/H, C-32, and C-37A aircraft--clearance for unsupervised aircrew duties.

5.2.1.2. 2ndCSO upgrade to 1st CSO. Conduct an additional QUALIFICATION/MISSION evaluation on an operational mission under actual conditions. Include all areas under GENERAL and QUALIFICATION/MISSION area and subareas. Upon successful completion of the evaluation, indicate a crew position as MK (1st CSO). Requisite exams are not required. Annotate this evaluation on AF Form 8 as a MISSION evaluation.

5.2.1.3. For 2nd CSO, base the expiration date of qualification on the successful completion of the initial 2nd CSO (or initial 1st CSO for C-20B/C/H, C-37A and VC-25 aircraft) QUALIFICATION/ MISSION evaluation.

5.2.2. Periodic: Conduct a periodic QUALIFICATION/MISSION evaluation. Include all areas under GENERAL and QUALIFICATION/MISSION for MK (1st CSO). Complete the evaluation on one mission, if possible. Use separate line entry if more than one flight is necessary to complete evaluation according to AFI 11-202V2. Compute the qualification expiration date based on the last flight date.

5.2.3. Multiple Qualification. (Conversion/Difference).

5.2.3.1. Difference: Communication Systems Operators require a certification from an CSO instructor to gain additional qualification on the same series aircraft. The C-20B/C/H and C-37A are considered the same series see paragraph [1.17](#).

5.2.3.2. Conversion: Communication Systems Operators may obtain additional qualification in MDS-aircraft with a designated crew complement for the CSO position (e.g. primary C-137C and conversion qualified in C-32A, etc.) Approval authority is according to paragraph [1.19](#). Multiple qualification is only available to a previously qualified CSO in their primary aircraft.. Complete

an initial evaluation on each aircraft. Annotate a separate AF Form 8 as a QUALIFICATION/MISSION evaluation (in the flight phase). Annotate the Crew Position as “MK” and add the appropriate MDS description remarks (e.g., “C-32A-Qualified).

5.2.3.2.1. Initial:

5.2.3.2.1.1. All areas under “GENERAL”.

5.2.3.2.1.2. QUALIFICATION/MISSION areas 11, 12, 13 (appropriate subareas) and 14.

5.2.3.2.1.3. Requisites: Complete a minimum 10-question Open Book and 5-question Closed Book or as specified in [Chapter 7](#).

5.2.3.2.2. Periodic: See requirement at paragraph [1.19.3](#).

5.2.3.2.3. Units specify requirements for an additional in-flight evaluation(s) in [Chapter 7](#).

5.3. Instructor Evaluations. See paragraph [1.9.4](#). CSO flight examiners will place particular emphasis on the examinee’s ability to recognize student difficulties and provide timely, effective corrective action. Initial instructor CSO evaluations will include instructing a CSO.

5.4. Emergency Procedures Evaluations (EPE). Units will develop CSO EPE requirements in [Chapter 7](#).

5.5. Communication System Operator Grading Criteria.

5.6. GENERAL.

Area 1, Directives and Publications.

- Q Possessed a high level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment. Publications were current and properly posted.
- Q- Unsure of some directives but could locate information in appropriate publications. Publications were current but improperly posted.
- U Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Publications were not current.

Area 2, Mission Preparation.

- Q Checked communications requirements and publications in accordance with established procedures and directives. Ordered and prepared classified communications kit and obtained all necessary documents and forms. Complied with local directives.
- Q- Same as above except for minor deviations or omissions which would not impair mission effectiveness. Did not fully comply with local directives.
- U Did not order or incorrectly prepared classified communications kit. Failed to comply with local directives.

Area 3, Use of Checklists.

- Q Procedures and checklist items required by flight manual and applicable directives were accomplished in a thorough and proficient manner.
- Q- Procedures and checklist items required by flight manuals and applicable directives were accomplished with omission, deviation, or error, which detracted from the overall efficient conduct of the mission. Performance was the minimum acceptable.
- U Procedures or checklist items required by flight manual and applicable directives were accomplished with omissions, deviations, or errors, which did, or could adversely affect the successful accomplishment of the mission or task.

Area 4, Safety Consciousness (Critical).

- Q Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
- U Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft in a dangerous manner.

Area 5, Judgment/Compliance (Critical).

- Q Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.
- U Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Failed to comply with a procedure that could have jeopardized safety or mission success.

Area 6, Crew Coordination/Crew Resource Management (CRM). See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF Form 4031, **CRM Skills Criteria Training/Evaluation**, as a reference.

- Q Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crew members' duties and responsibilities. Practiced CRM skills developed during CRM and associated aircrew training programs.
- Q- Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities. Displayed an inability to practice CRM skill during normal operations that did not adversely affect the mission.
- U Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight.

Area 7, Communication Procedures.

- Q Complete knowledge of, and compliance with, correct communication procedures. Makes radio and interphone transmissions concise with proper terminology.
- Q- Occasional deviation or omissions from required procedures, calls or acknowledgments.
- U Incorrect procedures or poor performance caused confusion. Did not call or acknowledge interphone transmissions with mission impact. Displayed poor operational knowledge of communication equipment.

Area 8, Life Support Systems/Egress.

- Q Displayed thorough knowledge of location and use of life support systems and equipment. Demonstrated and emphasized the proper operating procedures used to operate aircraft egress devices such as doors, windows, hatches, slide rafts, and escape ropes/pulleys.
- Q- Limited knowledge of location and use of life support systems and equipment. Unsure of the proper operating procedures used to operate some of the aircraft egress devices.
- U Displayed unsatisfactory knowledge of location and use of life support systems and equipment. Unable to properly operate aircraft egress devices.

Area 9, Knowledge/Completion of Forms.

- Q All required forms were complete, accurate, readable, accomplished on time and IAW applicable directives. Related an accurate debrief of significant events to applicable agencies (Safety, Maintenance, etc.)
- Q- Minor errors on forms that did not affect conduct of the mission. Incorrectly or incompletely reported some information due to minor errors, omissions, and/or deviations.
- U Did not accomplish required forms. Omitted or incorrectly reported significant information due to major errors, omissions, and/or deviations.

Area 10, Airmanship/Situational Awareness.

- Q Executed the assigned mission in a timely, efficient manner. Demonstrated strict professional flight and crew discipline throughout all phases of flight. Conducted the flight with a sense of understanding and comprehension.
- Q- Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.
- U Decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Failed to exhibit strict flight and crew discipline.

5.7. QUALIFICATION/MISSION.**Area 11, Equipment Inspection and Preflight Procedures (2nd CSO)**

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Checked AFTO Form 781. Correctly and efficiently determined equipment status. Accomplished required inspections in a proficient manner as outlined in applicable manuals, checklists, or directives. No omissions or deviations noted.
- Q- Slow to determine equipment status from information contained in AFTO Form 781. Some deviations or omissions from applicable manuals, checklists, or directives.
- U Major deviations from checklist sequence. Failed to check AFTO Form 781. Could not determine equipment status. Did not accomplish required inspections as prescribed in applicable manuals, checklists, or directives.

Area 11, Equipment Inspection and Preflight Procedures (1st CSO).

- Q** Checked AFTO Form 781. Correctly and efficiently determined equipment status. Accomplished required inspections in a proficient manner as outlined in applicable manuals, checklists, or directives. No omissions or deviations noted.
- Q-** Slow to determine equipment status from information contained in AFTO Form 781. Minor deviations or omissions from applicable manuals, checklists, or directives.
- U** Major deviations from checklist sequence. Failed to check AFTO Form 781. Could not determine equipment status. Did not accomplish required inspections as prescribed in applicable manuals, checklists, or directives.

Area 12, Emergency Procedures - General (Critical) (2nd CSO)

- Q** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.
- U** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crewmembers causing delays or confusion, which did or could have compounded the situation.

Area 12, Emergency Procedures - General (Critical) (1st CSO).

- Q** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.
- U** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crewmembers causing delays or confusion, which did or could have compounded the situation.

Area 13, Equipment System Knowledge.

Subarea 13A, HF Equipment (2nd CSO).

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Satisfactory knowledge of HF communication components, functions, and limitations. Properly demonstrated management and operation of HF communications systems. Adequately determined status of related systems.
- Q-** Incomplete knowledge of HF communication components, functions, and limitations. Some deviations in management or operation of HF communications systems. Adequately determined status of related systems.
- U** Unsatisfactory knowledge HF communications systems, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13A, HF Equipment (1st CSO).

- Q** In-depth knowledge of HF communication components, functions, and limitations. Properly demonstrated management and operation of HF communications systems. Adequately determined status of related systems.
- Q-** Limited knowledge of HF communication components, functions, and limitations. Minor deviations in management or operation of HF communications systems. Adequately determined status of related systems.

- U Unsatisfactory knowledge HF communications systems, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13B, UHF Equipment (2nd CSO).

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Satisfactory knowledge of UHF communication components, functions, and limitations. Properly demonstrated management and operation of UHF communications systems. Adequately determined status of related systems.
- Q- Incomplete knowledge of UHF communication components, functions, and limitations. Some deviations in management or operation of UHF communications systems. Adequately determined status of related systems.
- U Unsatisfactory knowledge UHF communications systems, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13B, UHF Equipment(1st CSO).

- Q In-depth knowledge of UHF communication components, functions, and limitations. Properly demonstrated management and operation of UHF communications systems. Adequately determined status of related systems.
- Q- Limited knowledge of UHF communication components, functions, and limitations. Minor deviations in management or operation of UHF communications systems. Adequately determined status of related systems.
- U Unsatisfactory knowledge UHF communications systems, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13C, SATCOM Equipment. (2nd CSO)

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Satisfactory knowledge of SATCOM components, functions, and limitations. Properly demonstrated management and operation of SATCOM systems. Adequately determined status of related systems.
- Q- Incomplete knowledge of SATCOM components, functions, and limitations. Some deviations in management or operation of SATCOM systems. Adequately determined status of related systems.
- U Unsatisfactory knowledge SATCOM systems, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13C, SATCOM Equipment. (1st CSO)

- Q In-depth knowledge of SATCOM components, functions, and limitations. Properly demonstrated management and operation of SATCOM systems. Adequately determined status of related systems.
- Q- Limited knowledge of SATCOM components, functions, and limitations. Minor deviations in management or operation of SATCOM systems. Adequately determined status of related systems.
- U Unsatisfactory knowledge SATCOM systems, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13D, Computer & Fax Equipment. (2nd CSO)

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Satisfactory knowledge of computer and fax components, functions, and limitations. Properly demonstrated management and operation of computer and fax components. Adequately determined status of related systems.
- Q-** Incomplete knowledge of computer and fax components, functions, and limitations. Some deviations in management or operation of computer and fax components. Adequately determined status of related systems.
- U** Unsatisfactory knowledge computer and fax components, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13D, Computer & Fax Equipment. (1st CSO)

- Q** In-depth knowledge of computer and fax components, functions, and limitations. Properly demonstrated management and operation of computer and fax components. Adequately determined status of related systems.
- Q-** Limited knowledge of computer and fax components, functions, and limitations. Minor deviations in management or operation of computer and fax components. Adequately determined status of related systems.
- U** Unsatisfactory knowledge computer and fax components, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13E, Crypto Equipment. (2nd CSO)

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Satisfactory knowledge of Crypto equipment, functions, and limitations. Properly demonstrated management and operation of Crypto equipment. Adequately determined status of related systems.
- Q-** Incomplete knowledge of Crypto equipment, functions, and limitations. Some deviations in management or operation of Crypto equipment. Adequately determined status of related systems.
- U** Unsatisfactory knowledge Crypto equipment, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13E, Crypto Equipment. (1st CSO)

- Q** In-depth knowledge of Crypto equipment, functions, and limitations. Properly demonstrated management and operation of Crypto equipment. Adequately determined status of related systems.
- Q-** Limited knowledge of Crypto equipment, functions, and limitations. Minor deviations in management or operation of Crypto equipment. Adequately determined status of related systems.
- U** Unsatisfactory knowledge Crypto equipment, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13F, INMARSAT Equipment. (2nd CSO)

- Q** Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Satisfactory knowledge of INMARSAT equipment, functions, and limitations. Properly demonstrated management and operation of INMARSAT equipment. Adequately determined status of related systems.

- Q-** Incomplete knowledge of INMARSAT equipment, functions, and limitations. Some deviations in management or operation of INMARSAT equipment. Adequately determined status of related systems.
- U** Unsatisfactory knowledge INMARSAT equipment, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13F, INMARSAT Equipment. (1st CSO)

- Q** In-depth knowledge of INMARSAT equipment, functions, and limitations. Properly demonstrated management and operation of INMARSAT equipment. Adequately determined status of related systems.
- Q-** Limited knowledge of INMARSAT equipment, functions, and limitations. Minor deviations in management or operation of INMARSAT equipment. Adequately determined status of related systems.
- U** Unsatisfactory knowledge INMARSAT equipment, equipment limitations, and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13G, AVIONICS Equipment. (2nd CSO)

- Q** Minimum acceptable levels of speed , accuracy and safety without the assistance of an instructor. Satisfactory knowledge of Avionics equipment, functions, preflight and limitations. Properly demonstrated management and operation of Avionics equipment. Adequately determined status or related systems.
- Q-** Incomplete knowledge of Avionics equipment, functions preflight and limitations. Some deviations in management or operation of Avionics equipment. Adequately determined status of related systems.
- U** Unsatisfactory knowledge of Avionics equipment, functions, preflight and limitations. Inadequate knowledge of procedures for applicable related systems.

Subarea 13G, AVIONICS Equipment. (1st CSO)

- Q** In-depth knowledge of avionics equipment, functions, preflight and limitations. Properly demonstrated management, operation and preflight of avionics equipment. Adequately determined status of related systems.
- Q-** Limited knowledge of avionics equipment, functions, preflight and limitations. Minor deviations in management, operation and preflight of Avionics equipment. Adequately determined status or relates systems.
- U** Unsatisfactory knowledge of Avionics equipment, functions, preflight and limitations. Inadequate knowledge of procedures for applicable related systems.

Subarea 13H, ENTERTAINMENT System. (2nd CSO)

- Q** Minimum acceptable levels of speed, accuracy and safety without the assistance of an instructor. Satisfactory knowledge of Entertainment system equipment, functions and limitations. Properly demonstrated management and operation of Entertainment system equipment. Adequately determined status of related systems.
- Q-** Incomplete knowledge of Entertainment systems equipment, functions and limitations. Some deviations in management or operation of Entertainment system equipment. Adequately determined status of related systems.

- U Unsatisfactory knowledge of Entertainment system equipment, limitations and functions. Inadequate knowledge of procedures for applicable related systems.

Subarea 13H, ENTERTAINMENT System. (1st CSO)

- Q In-depth knowledge of Entertainment system equipment, functions and limitations. Properly demonstrated management and operation of Entertainment system equipment. Adequately determined status of related systems.
- Q- Limited knowledge of Entertainment systems equipment, functions and limitations. Minor deviations in management or operation of Entertainment system equipment. Adequately determined status of related systems.
- U Unsatisfactory knowledge of Entertainment systems equipment, equipment limitations and functions. Inadequate knowledge of procedures for applicable related systems.

Area 14, Equipment/Systems Operation. (2nd CSO)

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Demonstrated ability to properly configure and operate system for reception and transmission of information/ messages in accordance with applicable directives. Practiced good circuit discipline, maintained link continuity.
- Q- Some discrepancies in configuring or operating system. Incorrect operation causing slight delay in communications service to aircraft commander or DV/Staff.
- U Did not properly configure or operate system. Major deviations or incorrect operation that caused significant delay in communications service.

Area 14, Equipment/Systems Operation. (1st CSO)

- Q Demonstrated in-depth ability to properly configure and operate system for reception and transmission of information/ messages in accordance with applicable directives. Practiced good circuit discipline, maintained link continuity.
- Q- Minor discrepancies in configuring or operating system. Incorrect operation causing slight delay in communications service to aircraft commander or DV/Staff.
- U Did not properly configure or operate system. Major deviations or incorrect operation that caused significant delay in communications service.

Area 15, Communications Security (Critical). (2nd CSO)

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Thoroughly familiar with comm. security requirements and procedures. Demonstrated proper use and responsible handling of classified information and/or equipment. Continuous watch and protection given to classified materials.
- U Unsatisfactory knowledge of communications security requirement and procedures. Improper handling of classified information or equipment. Information left unattended or inappropriately protected.

Area 15, Communications Security (Critical). (1st CSO)

- Q In-depth familiarity with comm. security requirements and procedures. Demonstrated proper use and responsible handling of classified information and/or equipment. Continuous watch and protection given to classified materials.

- U Limited knowledge of communications security requirement and procedures. Improper handling of classified information or equipment. Information left unattended or inappropriately protected.

Area 16, After Landing/Post mission. (2nd CSO)

- Q Minimum acceptable levels of speed, accuracy, and safety without the assistance of an instructor. Satisfactory knowledge and performance of required procedures. Correctly determined condition and status of the equipment. Completed AFTO Form 781 and satisfactorily debriefed maintenance personnel as required. Accomplished thorough area security check/COMSEC checklist.
- Q- Incomplete knowledge of required procedures. Unsure of condition or status of the equipment. AFTO Form 781 entries and maintenance debriefing were not concise or thorough.
- U Unsatisfactory knowledge of required procedures. Major deviations in procedures; could not determine condition or status of equipment. Inadequate completion of AFTO Form 781 and maintenance debriefing. Area security check/ COMSEC checklist not performed.

Area 16, After Landing/Post Mission. (1st CSO)

- Q In-depth knowledge and performance of required procedures. Correctly determined condition and status of the equipment. Completed AFTO Form 781 and satisfactorily debriefed maintenance personnel as required. Accomplished thorough area security check/COMSEC checklist.
- Q- Limited knowledge of required procedures. Unsure of condition or status of the equipment. AFTO Form 781 entries and maintenance debriefing were not concise or thorough.
- U Unsatisfactory knowledge of required procedures. Major deviations in procedures; could not determine condition or status of equipment. Inadequate completion of AFTO Form 781 and maintenance debriefing. Area security check/ COMSEC checklist not performed.

5.8. INSTRUCTOR.

Area 17, Instructor Ability (Critical).

- Q Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe situations.
- U Unable to effectively communicate or provide timely feedback to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe situations in a timely manner. Made no attempt to instruct.

Area 18, Instructor Demonstration (Critical).

- Q Effectively demonstrated procedures and techniques. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
- U Did not demonstrate correct procedure or techniques. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.

Area 19, Student Briefing/Critique (Critical).

- Q** Briefings were well organized, accurate, and thorough. Reviewed students' present level of training and defined mission events to be performed. During the critique, demonstrated an effective ability to reconstruct the flight, offer mission analysis, and provide guidance where appropriate. Training grade reflected the actual performance of the student relative to the standard. Pre-briefed the student's next mission, if required.
- U** Briefings were marginal or non-existent. Did not review the students past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

5.9. UNIT. The 89 AW will include MAJCOM-specific and local evaluation areas in **Chapter 7**. Include the evaluation areas on AF Form 3862 (see paragraph **1.14.**).

Chapter 6

FLIGHT ATTENDANT EVALUATIONS

6.1. General. This chapter standardizes initial, periodic, and re-qualification evaluations, including requirements for qualification, mission, difference and instructor evaluations.

6.2. Qualification/Mission Evaluations.

6.2.1. Overview: 89th AW Flight Attendants (FA) combine an initial QUALIFICATION and MISSION evaluation during a SAM mission. The evaluation leads to unsupervised, 2nd FA (FT) in the C-9C, C-137C and C-32A. A follow-on evaluation upgrades the 2nd FA (FT) to 1st FA (MT). FA in the C-20B/C/H, C-37A, and VC-25 bypass 2nd FA and receive a single evaluation for 1st FA position.

NOTE: The squadron commander may approve an evaluation on a single flight/mission to MT (1st FA) qualification (bypass FT, 2nd FA). If used, include all area and subareas.

6.2.1.1. Initial. Conduct the initial qualification evaluation on operational or training mission. Include all areas 2nd FA (FT) and (MT for 1st FA) under GENERAL and QUALIFICATION/MISSION and requisite exams. Upon successful completion indicate a crew position as FT (2nd FA) for C-9C, C-137C, and C-32A aircraft or MT (1st FA) for C-20B/C/H, C-37A and VC-25 aircraft--clearance for unsupervised aircrew duties.

6.2.1.2. For 2nd FA, base the expiration date of qualification on the successful completion of the initial 2nd FA (or initial 1st FA for C-20B/C/H, C-37A and VC-25 aircraft) QUALIFICATION/MISSION evaluation.

6.2.1.3. 2nd FA (FT) upgrade to 1st FA (MT). Conduct a QUALIFICATION/MISSION evaluation on an operational mission. Include all areas under GENERAL and QUALIFICATION/MISSION (including areas designated MT) and requisites. Upon successful completion of the evaluation, indicate a crew position as MT (1st FA). Include a expiration date.

6.2.2. Periodic: Conduct a periodic QUALIFICATION/MISSION evaluation. Include all areas under GENERAL and QUALIFICATION/MISSION for MT (1st FA). Complete the evaluation on one mission, if possible. Use separate line entry if more than one flight is necessary to complete evaluation according to AFI 11-202V2. Qualification expiration date is based on earliest flight.

6.2.3. Multiple Qualification. (Conversion/Difference).

6.2.3.1. Difference: Flight Attendants require a certification from an instructor for an additional qualification on same series aircraft. The C-20B/C/H and C-37A are considered the same series. See paragraph 1.17. for additional information.

6.2.3.2. Conversion: Flight Attendants may obtain additional qualification in MDS-aircraft with a designated crew complement for the Flight Attendant position (e.g. primary C-137C and conversion qualified in C-32A, etc.) Approval authority is according to paragraph 1.19. Multiple qualification is only available to Flight Attendants previously qualified in their primary aircraft. Complete an initial evaluation on each aircraft. Annotate a separate AF Form 8 as INITIAL/

QUALIFICATION/MISSION evaluation (in the flight phase). Annotate the Crew Position as “MT” and add the appropriate MDS description remarks (e.g., “C-32A-Qualified).

6.2.3.2.1. Initial: Complete all areas under “GENERAL, QUALIFICATION/MISSION.

6.2.3.2.1.1. Requisites: Complete a minimum 10 question open book and close book exam. Complete a EPE.

6.2.3.2.2. Periodic: See waiver at paragraph 1.19.3.

6.2.3.2.3. Units specify requirements in Chapter 7.

6.3. Instructor Evaluations (Initial, Periodic, and Requalification). Flight Examiners will place particular emphasis on the examinee’s ability to recognize student difficulties and provide timely, effective corrective action. Conduct initial or requalification instructor evaluations while instructing a qualified Flight Attendant. See paragraph 1.9.4. and the following:

6.3.1. Initial instructor evaluations will include all areas in GENERAL and INSTRUCTOR.

NOTE: Flight Attendants who desire to realign their periodic QUALIFICATION/MISSION evaluation (expiration date) during their initial (or requalification) instructor evaluation must also demonstrate all required areas/subareas under QUALIFICATION/MISSION, and complete written requisite examinations.

6.3.2. Periodic instructor evaluations will be administered in conjunction with qualification/mission evaluations and require all areas/subareas in GENERAL, QUALIFICATION/MISSION, and INSTRUCTOR.

6.4. Emergency Procedures Evaluations (EPE). Evaluate an aircrew member’s knowledge of emergency procedures and systems knowledge during all initial, requalification and periodic evaluations.

6.5. Additional Information. Flight Attendant flight examiners should not conduct evaluations when scheduled as primary aircrew members.

6.6. Flight Attendant Evaluation Criteria.

6.7. GENERAL.

Area 1, Directives and Publications.

Subarea 1A, Knowledge.

Q Possessed a high level of knowledge of all applicable aircraft publications and procedures and understood how to apply both to enhance mission accomplishment.

Q- Unsure of some directives but could locate information in appropriate publications.

U Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner.

Subarea 1B, Currency.

Q Possessed all required publications. Publications were current and properly posted.

- Q-** Possessed all publications. Publications were current but improperly posted but would not have jeopardized mission accomplishment.
- U** Fails to possess all required publications or in serviceable condition. Publications were not current and could have jeopardized mission accomplishment.

Area 2, Crew Coordination/Crew Resource Management (CRM). See AFI 11-290, *Cockpit/Crew Resource Management Training Program*, and use AF Form 4031, **CRM Skills Criteria Training/Evaluation**, as a reference.

- Q** Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers' duties and responsibilities. Practiced CRM skills developed during CRM and associated aircrew-training programs.
- Q-** Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers' duties and responsibilities. Displayed an inability to practice CRM skill during normal operations that did not adversely affect the mission.
- U** Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight.

Area 3, Use of Checklists.

- Q** Procedures and checklist items required by flight manual and applicable directives were accomplished in a thorough and proficient manner.
- Q-** Procedures and checklist items required by flight manuals and applicable directives were accomplished with omission, deviation, or error, which detracted from the overall efficient conduct of the mission. Performance was the minimum acceptable.
- U** Procedures or checklist items required by flight manual and applicable directives were accomplished with omissions, deviations, or errors, which did, or could adversely affect the successful accomplishment of the mission or task.

Area 4, Judgment/Compliance (Critical).

- Q** Prepared and completed mission in compliance with existing regulations and directives. Demonstrated knowledge of operating procedures and restrictions and where to find them in the correct publications.
- U** Unaware of established procedures and/or could not locate them in the appropriate publication in a timely manner. Failed to comply with a procedure that could have jeopardized safety or mission success.

Area 5, Safety Consciousness (Critical).

- Q** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.
- U** Not aware of or did not comply with all safety factors required for safe aircraft operation or mission accomplishment. Operated aircraft or equipment in a dangerous manner.

Area 6, First Aid.

- Q** Aware of and complied with all first aid procedures. Knew location of on-board First Aid equipment.

- Q- Not aware of or did not comply with some First Aid procedures. Knowledge was the minimum acceptable.
- U Not aware of or did not comply with all First Aid procedures. Did not know of First Aid equipment location.

Area 7, Knowledge/Completion of Forms.

- Q Read and initialed for all items in FCIF. Completed/obtained all applicable forms. Complied with all local directives.
- Q- Same as above except for minor deviations or omissions which would not impair mission effectiveness. Did not fully comply with local directives.
- U FCIF was not reviewed or initialed. Failed to attend required briefings. Failed to obtain/complete all applicable forms, or made major errors or omissions. Did not obtain adequate mission information. Failed to comply with local directives.

6.8. QUALIFICATION/MISSION

Area 8, Emergency Procedures

Subarea 8A, Emergency Landing (Critical)

- Q Demonstrated or explained knowledge of all planned/unplanned Emergency Landing procedures for all flight attendant positions.
- U Unsatisfactory knowledge of planned/unplanned Emergency Landing procedures.

Subarea 8B, Ground Evacuation (Critical)

- Q Demonstrated or explained knowledge of all Ground Evacuation procedures for all flight attendant positions.
- U Unsatisfactory knowledge of Ground Evacuation procedures.

Subarea 8C, Ditching (Critical)

- Q Demonstrated or explained knowledge of all planned/unplanned Ditching procedures for all flight attendant positions.
- U Unsatisfactory knowledge of planned/unplanned ditching procedures.

Subarea 8D, Loss of cabin pressure (Critical)

- Q Demonstrated or explained knowledge of all loss of cabin pressurization procedures for all flight attendant positions.
- U Major deviations/omissions that detracted from mission effectiveness or success. Did not follow sanitation requirements

Subarea 8E, Aircraft Fire/Smoke Fumes (Critical)

- Q Demonstrated or explained knowledge of all aircraft fire/smoke/fume procedures for all flight attendant positions.
- U Unsatisfactory knowledge of aircraft fire/smoke/fume procedures.

Area 9, Professional Equipment

- Q** Demonstrated/Knowledgeable of required professional equipment. Equipment on-hand and operational.
- Q-** Knowledgeable of professional equipment. Some equipment not on hand or operational.
- U-** Unsatisfactory knowledge of professional equipment. Some equipment not on hand or operational.

Area 10, Anti-Hijacking /Bomb Threat

- Q** Knowledgeable and can explain local directives and procedures for anti-hijacking, aircraft security, and bomb threats. Is knowledgeable of duress code and familiar with bomb threat checklist.
- Q-** Limited in knowledge of local procedures but can obtain answers in a timely manner.
- U** Unsatisfactory knowledge of procedures and is unable to obtain answers in a timely manner. Could jeopardize safety of flight.

Area 11, Aircraft Systems Knowledge Operations

Subarea 11A, Exterior

- Q** Demonstrated aircraft safe distance requirements. Able to identify location of service panels and exterior emergency lighting.
- Q-** Limited knowledge of aircraft safe distance requirements, was able to locate information in a timely manner. Resulted in additional training/debrief.
- U** Unsatisfactory knowledge on distance requirements. Not able to locate information in a timely manner.

Subarea 11B, Doors/Exits

- Q** Demonstrated/explained the operation and emergency use of all doors and exits. Was able to explain Flight Attendant's responsibilities for normal and emergency operations. Able to open and close correctly. Knowledgeable on associated caution and warnings with each exit.
- Q-** Limited operational knowledge of doors and exits. Difficulty opening or closing doors and exits or explain emergency use of exits in emergency situations.
- U** Unsatisfactory knowledge of operation on doors and exits.

Subarea 11C, Emergency Equipment Location and Use

- Q** Demonstrate in-depth knowledge of use and location of all emergency equipment. Knowledgeable to explain how to remove all equipment from securing brackets.
- Q-** Limited knowledge of use and location of all emergency equipment. Unsure of some operating procedures. Result additional training/debrief.
- U** Unsatisfactory knowledge of equipment and equipment location that jeopardizes safety of passengers and crew.

Subarea 11D, Seats/Tables/Couches

- Q** Demonstrated/explained the operation and emergency use of all seats/tables/couches. Was able to explain flight attendant responsibilities for normal use. Knowledgeable on cautions and warnings associated with each area. Demonstrated proper stowing for takeoffs and landings.

- Q-** Limited operational knowledge for seats/tables/couches. Unable to operate in proper manner. Able to locate information in a timely manner on proper operation and procedures. Result additional training/debrief.
- U** Unsatisfactory knowledge of operation and seats/tables/couches. Unable to locate information to properly operate seats/table/couches. Could not explain proper use of seats/table/couches in emergency and or normal situations. Failed to properly stow for takeoffs and or landings.

Subarea 11E, Lavatories

- Q** Demonstrated/explained systems located in lavatory to include any distinct features. Explained any notes/cautions/warnings associated with equipment. Demonstrated ability to maintain a clean lavatory.
- Q-** Limited demonstration or knowledge of lavatory systems.
- U** Unsatisfactory lavatory systems knowledge that could result in adverse mission accomplishment/safety.

Subarea 11F, Galley

- Q** Demonstrated/explained systems and equipment located in each galley to include any distinct features. Explained any Notes/Cautions/Warnings associated with systems and equipment. Demonstrated ability to maintain a clean galley.
- Q-** Limited demonstration or knowledge of galley systems.
- U** Unsatisfactory galley systems and equipment knowledge that could result in adverse mission accomplishment/safety.

Subarea 11G, Communication Systems

- Q** Demonstrated use of an explained communication systems and equipment located on aircraft to include any distinct features. Explained any Notes/Cautions/Warnings associated with systems and equipment.
- Q-** Limited demonstration or knowledge of communications systems.
- U** Unsatisfactory communications systems and equipment knowledge that could result in adverse mission accomplishment/safety.

Subarea 11H, Water Systems

- Q** Demonstrated use of and explained water system on aircraft to include any distinct features. Explained any Notes/Cautions/Warnings associated with water system.
- Q-** Limited demonstration or knowledge or water systems.
- U** Unsatisfactory water systems and equipment knowledge that could result in adverse mission accomplishment/safety.

Subarea 11I, Oxygen System

- Q** Demonstrated proper use of and explained oxygen system to include any distinct features. Explained any Notes/Cautions/Warnings associated with oxygen system.
- Q-** Limited demonstration or knowledge of oxygen system.
- U** Unsatisfactory oxygen systems and equipment knowledge that could result in adverse mission accomplishment/safety.

Subarea 11J, Heating/Ventilation System

- Q** Demonstrated proper use of and explained oxygen system to include any distinct features. Explained any Notes/Cautions/Warnings associated with heat/ventilation system.
- Q-** Limited demonstration or knowledge of heat/ventilation system.
- U** Unsatisfactory heat/ventilation systems and equipment knowledge that could result in adverse mission accomplishment/safety.

Subarea 11K, Lighting/Electrical Systems

- Q** Demonstrated proper use and locations of electrical outlets, interior emergency lighting, circuit breakers and flight attendant panels to include any distinct features. Explained any Notes/Cautions/Warnings associated with lighting/electrical system.
- Q-** Limited demonstration or knowledge of lighting/electrical system.
- U** Unsatisfactory lighting/electrical systems and equipment knowledge that could result in adverse mission accomplishment/safety.

Area 12, Customs

- Q** Satisfactory handling of custom requirements; did not cause additional or undue inconvenience to passengers or flight. Displayed satisfactory knowledge of proper form completion. Complied with local directives and applicable instructions.
- Q-** Minor errors/omissions that did not detract from mission effectiveness.
- U** Major errors or omissions that detracted from mission effectiveness or success. Did not follow prescribed directives/instructions.

Area 13, Loading/Securing/Passenger Boarding**Subarea 13A, Equipment/Supplies/Passengers**

- Q** Demonstrated satisfactory knowledge of passenger seating, baggage handling, baggage/equipment, mission supplies/equipment, and frozen/refrigerated food items (as applicable) securing prior to and during flight. Demonstrated awareness of safety procedures while loading and seating passengers and hand carried baggage.
- Q-** Minor errors/omissions, which did not detract from satisfactory mission accomplishment, safety or result in undue passenger inconveniences.
- U** Major errors/omissions or inadequate knowledge that detracted from satisfactory mission accomplishment or compromised safety.

Subarea 13B, Manifest/Security

- Q** Demonstrated/knowledgeable on security procedures and completion/obtain manifests. Is aware of local procedures for the release and security of passenger and crew manifests.
- Q-** Limited knowledge of established procedures. No effect on mission security or safety.
- U** Unsatisfactory knowledge of established procedures. Result jeopardized safety and security.

Subarea 13C, Passenger Briefing

- Q** Demonstrates passenger/emergency briefing procedures.
- Q-** Minor deviations noted during passenger/emergency briefings.

- U Failed to give a passenger briefing when required. Major deviations noted during passenger/emergency briefings.

Area 14, In-flight Duties

- Q General passenger service was efficient, professional and added to passenger comfort. Accomplished all cruise checklist items as necessary. All phases of passenger handling/safety carried out in accordance with mission requirements.
- Q- Same as above except for minor errors/omissions which did not detract from mission effectiveness or success.
- U Major errors or omissions that detracted from mission effectiveness or success. Did not follow prescribed directives/instruction.

Area 15, After Landing/Post-flight Duties

- Q Accomplished after landing/engine shutdown and post mission procedures as prescribed in applicable directives and checklists. Supervised the offloading of passengers and baggage according to mission requirements. Completed required cleaning, forms, equipment status, and coordinated necessary ground support.
- Q- Minor errors or omissions that did not detract from mission effectiveness or compromised safety.
- U Major errors/omissions that caused undue delay or confusion in passenger offloading. Detracted from mission effectiveness or compromised safety.

Area 16, Mission Coordination (MT only)

Subarea 16A, Menu Planning/Mission Planning (MT only)

- Q Demonstrated/explained procedures for making contact with flight crew and passenger point-of-contact (POC). Planned meals according to POC and flight time requirements. Presentation/quantity to meet mission requirements. Had all needed forms/supplies to complete the mission.
- Q- Limited knowledge in menu planning. Difficulty establishing mission requirements with the contact. Minor deviations from POC requests. Poor presentation skills/low quantity to meet mission requirements.
- U Unable to plan meals effectively. Unable to establish contact. Menu did not meet mission requirements.

Subarea 16B, Shopping/Catering/Local Programs (MT only)

- Q Demonstrated/explained procedures for catering. Able to coordinate with crew members for shopping requirements at home station and during RONS. Menus/shopping list prepared in advance of shopping. Completed shopping requirements in a timely manner.
- Q- Demonstrated limited knowledge in shopping preparation and failed to complete in a timely manner. Some items were not purchased, but did or would not affect the overall accomplishment of the meal.
- U Unable to shop for meal requirements effectively. Excessive over or under buying of items. Shopping requirements did not meet mission accomplishment with a direct negative affect on meal service.

Subarea 16C, Special Request Requirements (MT only)

- Q Demonstrated/explained the use of special request letters and forms for use during contact meeting. Demonstrated knowledge of correct bill requirement/annotations.
- Q- Some items were not procured, but proper steps were taken to inform the DV as to why request could not be filled. Alternative suggestions were made to the point of contact.
- U Failed to obtain special request items without notification to the contact. Did not use proper billing procedures leading to over/under billing the correct amount.

Area 17, Supervisory Ability (MT only)

- Q Effectively coordinated with other aircrew members throughout the assigned mission. Demonstrated operational knowledge of other crewmembers duties and responsibilities. Offered assistance to flight attendants as needed.
- Q- Crew coordination adequate to accomplish mission. Demonstrated limited knowledge of other crewmembers duties and responsibilities. Showed a lack of situational awareness in the accomplishment of mission tasks.
- U Poor crew coordination or unsatisfactory knowledge of other crewmember duties and responsibilities negatively affected mission accomplishment or safety of flight. Unwilling to freely assist other flight attendants with mission tasks.

Area 18, Meal Preparation (MT only)

- Q Demonstrated satisfactory knowledge of the proper care and use of food service equipment. Safety considerations and sanitation were observed through all phases of food preparation, service and clean-up. Able to provide a quality meal with proper serving size.
- Q- Minor deviations/omissions that did not detract from mission effectiveness or success. Limited effort or ability to provide a quality meal.
- U Major deviations/omissions that detracted from mission effectiveness or success. Did not follow sanitation or storage requirements. Failure to provide a quality meal.

Area 19, Enroute Requirements (MT only)

- Q Demonstrated knowledge to plan for and accomplish enroute requirements/i.e. shopping, itinerary changes, transportation, etc needed for mission accomplishment.
- Q- Limited knowledge to plan for and accomplish flight requirements slight affecting mission accomplishment. Resulted in additional training/debrief.
- U Unsatisfactory knowledge of flight requirements. Items not available during mission resulting in adverse mission accomplishment.

Area 20, Mission Termination (MT only)

- Q Demonstrated satisfactory knowledge of the proper mission termination procedures and disposal of food/beverage items. All forms and required paperwork turned into the applicable agency in a timely manner.
- Q- Minor deviations/omissions of mission termination procedures or disposal of food/beverage items. Limited knowledge of mission termination forms.
- U Major deviations/omissions that detracted from proper mission termination. Forms were improperly filled out and requirements not met in a timely manner.

6.9. INSTRUCTOR.

Area 21, Instructor Ability (Critical).

- Q Demonstrated the ability to communicate effectively. Provided appropriate guidance when necessary. Planned ahead and made timely decisions. Identified and corrected potentially unsafe maneuvers/situations.
- U Unable to effectively communicate or provide timely feedback to the student. Did not provide corrective action when necessary. Did not plan ahead or anticipate student problems. Did not identify unsafe maneuvers/situations in a timely manner. Made no attempt to instruct.

Area 22, Instructor Demonstrations (Critical).

- Q Effectively demonstrated procedures and techniques. Thorough knowledge of applicable aircraft systems, procedures, publications, and directives.
- U Did not demonstrate correct procedure or techniques. Insufficient depth of knowledge about applicable aircraft systems, procedures, and/or proper source material.

Area 23, Student Briefing/Critique (Critical).

- Q Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Showed an excellent ability during the critique to reconstruct the flight, offer mission analysis, and provide guidance where appropriate. Training grade reflected the actual performance of the student relative to the standard. Pre-briefed the student's next mission, if required.
- U Briefings were marginal or non-existent. Did not review the student's past performance. Failed to adequately critique student or analyze the mission. Training grade did not reflect actual performance of student. Overlooked or omitted major discrepancies. Incomplete pre-briefing of student's next mission, if required.

6.10. UNIT. The 89 AW will include MAJCOM-specific and local evaluation areas in **Chapter 7**. Include the evaluation areas on AF Form 3862 (see paragraph **1.14.**).

Chapter 7

LOCAL PROCEDURES

7.1. General. Use this chapter to define local evaluation criteria and local procedures, as required.

ROBERT H. FOGLESONG, Lt General, USAF
DSC/Air and Space Operations

Attachment 1**GLOSSARY OF REFERENCES, ABBREVIATIONS, ACRONYMS, AND TERMS*****References***

AFPD 11-2, *Aircraft Rules and Procedures*
AFI 11-202V1, *Aircrew Training*
AFI 11-202 V2, *Aircrew Standardization/Evaluation Program*
AFI 11-2SAMV1, *Special Air Missions (SAM) Aircrew Training*
AFI 11-2SAMV3, *Special Air Missions (SAM) Operations Procedures*
AFI 11-2AEV2, *Aeromedical Evacuation Aircrew Evaluation Procedures*
AFI 11-215, *Flight Manuals Program*
AFI 11-218, *Aircraft Operations and Movement on the Ground*
AFI 11-290, *Cockpit/Crew Resource Management Training Program*
AFMAN 11-210, *Instrument Refresher Course Program*
AFMAN 36-2236, *Guidebook for Air Force Instructors*
AFMAN 37-139, *Records Disposition Schedule*

Abbreviations and Acronyms

ARIP—Air Refueling Initial Point
ARCP—Air Refueling Control Point
RZ PT—Rendezvous Point
ATC—Air Traffic Control
ATD—Aircrew Training Device
CSO—Communication Systems Operator
ELT—Emergency Locator Transmitter
EOC—End of Course
EPE—Emergency Procedures Evaluation
FA—Flight Attendant
FT—Qualified in Basic Weapon System (F) Passenger Specialist (B)
FCIF—Flight Crew Information File
FE—Flight Engineer
FF—Qualified in Basic Weapon System (F), Flight Engineer (F)
FK—Qualified In Basic Weapon System (F), Communications Systems Operator (K)

FEF—Flight Evaluation Folder

FMS—Flight Management System

FP—First Pilot

GA—Go-Around

GPS—Global Positioning System

ILS—Instrument Landing System

INS—Inertial Navigation System

KIAS—Knots Indicated Airspeed

MT—Mission Qualified in Weapon System (M), Flight Attendant (T)

MF—Mission Qualified in Weapon System (M), Flight Engineer (F)

MK—Mission Qualified in Weapon System (M), Communication Systems Operator (K)

MQF—Master Question File

MDA—Minimum Descent Altitude

PAR—Precision Approach Radar

RON—Remain Overnight

RQ—Requalification

SAM—Special Air Missions

SID—Standard Instrument Departure

SQB—Secure Question Bank

TAA/D—Threat Avoidance Approach/Departure

TCH—Threshold Crossing Height

Attachment 2

PILOT EVALUATION WORKSHEET EXAMPLE

Figure A2.1. 89 AW Pilot Flight Evaluation Worksheet.

AREA/SUBAREAS	Q	O	U	T	REMARKS
GENERAL	■	■	■	X	
1. Directives and Publications					
2. Msn Preparation/Planning/Performance					
3. Use of Checklists					
4. Safety Consciousness		■			
5. Judgment/Compliance		■			
6. Crew Coordination/CRM					
7. Communication Procedures					
8. Life Support Systems/Egress					
9. Knowledge/Completion of Forms					
10. Airmanship/Situational Awareness					
QUALIFICATION/MISSION	■	■	■	X	
11. Ground Operations/Taxi					
12. Takeoff					
13. Radar Ops/Wtr Avoidance/Windshear					
14. Fuel Planning/Conservation					
15. VFR Pattern					
16. Landings					
16A. Full Flap					
16B. Partial Flap					
16C. Engine Out					
16D. Touch and Go					
16E. Right Seat					
17. Landing Roll/Braking/Reverse Thrust					
18. All Eng Go-Around (GA) FP & above					
19. Engine Out Operations FP & above					
20. Engine Out GA/EFTOC FP & above					
21. Boldface Emergency Procedures		■			
22. Other Observed Emergency Procd.					
23. System Ops/Knowledge/Limitations					
24. Receiver A/R (If Qualified)					
INSTRUMENT	■	■	■	X	
25. Instrument Departure/SID					
26. EnRoute Navigation/FMS (if installed)					
27. Holding					
28. Use of NAVAIDS					
29. Descent/Arrival					
30. Precision Approach (two required)					
30A. PAR (verbal)					
30B. ILS					
30C. CAT II ILS					
31. Non-Precision Approach (two required)					
31A. NDB					
31B. Localizer/BC					
31C. ASR					

[illegible]

Attachment 3

NAVIGATOR EVALUATION WORKSHEET EXAMPLE

Figure A3.1. 89 AW Navigator Flight Evaluation Worksheet.

AREA/SUBAREAS	Q	Q-	U	T	REMARKS
GENERAL	■	■	■	X	
1. Directives and Publications					
2. Msn Preparation/Planning/Performance					
3. Use of Checklists					
4. Safety Consciousness		■			
5. Judgment/Compliance		■			
6. Crew Coordination/CRM					
7. Communication Procedures					
8. Life Support Systems/Egress					
9. Knowledge/Completion of Forms					
10. Airmanship/Situational Awareness					
QUALIFICATION/MISSION	■	■	■	X	
11. Ground Operations/Taxi					
12. Takeoff					
13. Radar Ops/Wtr Avoidance/Windshear					
14. Fuel Planning/Conservation					
15. VFR Pattern					
16. Landings					
16A. Full Flap					
16B. Partial Flap					
16C. Engine Out					
16D. Touch and Go					
16E. Right Seat					
17. Landing Roll/Braking/Reverse Thrust					
18. All Eng Go-Around (GA) FP & above					
19. Engine Out Operations FP & above					
20. Engine Out GA/EFTOC FP & above					
21. Boldface Emergency Procedures		■			
22. Other Observed Emergency Procd.					
23. System Ops/Knowledge/Limitations					
24. Receiver A/R (If Qualified)					
INSTRUMENT	■	■	■	X	
25. Instrument Departure/SID					
26. EnRoute Navigation/FMS (if installed)					
27. Holding					
28. Use of NAVAIDS					
29. Descent/Arrival					
30. Precision Approach (two required)					
30A. PAR (verbal)					
30B. ILS					
30C. CAT II ILS					
31. Non-Precision Approach (two required)					
31A. NDB					
31B. Localizer/BC					
31C. ASR					

Figure A3.1. Continued.

[illegible]

Attachment 4

FLIGHT ENGINEER EVALUATION WORKSHEET EXAMPLE

Figure A4.1. 89 AW Flight Engineer Flight Evaluation Worksheet.

AREA/SUBAREAS	Q	Q-	U	T	REMARKS
GENERAL	■	■	■	X	
1. Directives and Publications					
2. Msn Preparation/Planning/Performance					
3. Use of Checklists					
4. Safety Consciousness		■			
5. Judgment/Compliance		■			
6. Crew Coordination/CRM					
7. Communication Procedures					
8. Life Support Systems/Egress					
9. Knowledge/Completion of Forms					
10. Airmanship/Situational Awareness					
QUALIFICATION/MISSION	■	■	■	X	
11. Interior Inspection					
12. Exterior Inspection					
13. Before Starting/Starting Engines					
14. Before Taxi/Taxi					
15. Before Takeoff/Takeoff/Deptr.Monitor					
16. Clmb/Cruise/Descent/Apprch Monitor					
17. Landing/After Landing					
18. Engine Shutdown/Before Leave Acft					
19. Knowledge of Emergency Procedures					
19A. Ground Emergencies					
19B. Take-Off Emergencies					
19C. In-flight Emergencies					
19D. Landing Emergencies					
20. Boldface Emergency Procedures		■			
21. Systems Knowledge/Operations					
21A. Engines/APU					
21B. Oxygen					
21C. Fuel					
21D. Hydraulic					
21E. Flight Controls/Surfaces (Prim./Sec.)					
21F. Landing Gear/Brakes/Steering					
21G. Doors/Exits/Ramp/Hatches					
21H. Pneumatic/Bleed Air					
21I. Pressurization/Air Conditioning					
21J. Anti-ice/De-ice					
21K. Windows/Windshields					
21L. Electrical/Lighting					
21M. Fire Detection/Extinguishing					
21N. ELT/Voice/Flight Data Recorder					
21O. INS/FMS					
21P. Climate/Environmental Systems					
21Q. Airframe					
21R. Avionics					

AF FORM 3862, 19990601 (EF) (FormFlow Ver 2.15)

Page 2 of 4 Pages

AREA/SUBAREAS	Q	Q-	U	T	REMARKS
21S. Radios					
21T. Radar					
22. 1st Flight Engineer Responsibilities					
23. Flight Progress					
24. Crew Contact					
25. En Route Procedures					
26. Post Flight/RON Procedures					
27. Aircraft Security					
28. Receiver A/R (VC-25 Only)					
INSTRUCTOR	■	■	■	X	
29. Instructor Ability		■			
30. Instructor Demonstration		■			
31. Student Briefing/Critique		■			
ENROUTE (Initial Only)	■	■	■	X	
32. Flight Engineer Responsibilities					
33. Flight Progress					
34. Crew Contact					
35. Enroute Procedures					
36. Post Flight /RON Procedures					
37. Aircraft Security					
UNIT	■	■	■	X	

AF FORM 3862, 19990601 (EF) (FormFlow Ver 2.15)

Page 3 of 4 Pages

[illegible]

CSO EVALUATION WORKSHEET EXAMPLE

[illegible]

Figure A5.1. Continued.

[illegible]

FLIGHT ATTENDANT EVALUATION WORKSHEET EXAMPLE

[illegible]

Figure A6.1. Continued.

[illegible]